

# WEST Search History





DATE: Friday, November 19, 2004

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>			
<input type="checkbox"/>	L22	Nielsen-K-G.IN.	7
<input type="checkbox"/>	L21	Nielsen-Klaus-G.IN.	0
<input type="checkbox"/>	L20	Nielsen-Klaus-Gregorius.IN.	8
<input type="checkbox"/>	L19	L15 AND carrier	62
<input type="checkbox"/>	L18	L15 AND peptide	66
<input type="checkbox"/>	L17	L15 AND vaccine	70
<input type="checkbox"/>	L16	L15 AND immunogen	55
<input type="checkbox"/>	L15	L14 AND L9	70
<input type="checkbox"/>	L14	T helper cell epitope	176
<input type="checkbox"/>	L13	L12 AND L9	8
<input type="checkbox"/>	L12	L11 AND T helper cell epitope	14
<input type="checkbox"/>	L11	530/300.CCLS.	3368
<input type="checkbox"/>	L10	L8 AND L9	19
<input type="checkbox"/>	L9	B-cell epitope OR cytotoxic T cell epitope	956
<input type="checkbox"/>	L8	L7 AND T helper cell epitope	52
<input type="checkbox"/>	L7	424/178.1,179.1,183.1,184.1,185.1,193.1.CCLS.	5076
<input type="checkbox"/>	L6	Koefoed.IN.	22
<input type="checkbox"/>	L5	Koefoed-P.IN.	2
<input type="checkbox"/>	L4	Koefoed-Peter.IN.	5
<input type="checkbox"/>	L3	Nielsen.IN.	8244
<input type="checkbox"/>	L2	Nielsen-K.IN.	62
<input type="checkbox"/>	L1	(Nielsen-Klaus.IN.)	5

END OF SEARCH HISTORY

# WEST Search History





DATE: Friday, November 19, 2004

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<input type="checkbox"/>	L3	Nielsen.IN.	8244
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END OF SEARCH HISTORY

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WO009706263A1  
JP403173830A



# Hit List

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Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 6187263 B1

Using default format because multiple data bases are involved.

L1: Entry 1 of 5

File: USPT

Feb 13, 2001

US-PAT-NO: 6187263

DOCUMENT-IDENTIFIER: US 6187263 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Method of improving indoor air quality by thermally inactivating fungi on building surfaces

DATE-ISSUED: February 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nielsen; Klaus	Kokkedal			DK

US-CL-CURRENT: 422/26; 422/38

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. Des.
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☐ 2. Document ID: US 5112756 A

L1: Entry 2 of 5

File: USPT

May 12, 1992

US-PAT-NO: 5112756

DOCUMENT-IDENTIFIER: US 5112756 A

TITLE: Continuous production of bovine Maedi-Visna-like viral antigens in Cf2Th cells

DATE-ISSUED: May 12, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bouillant; Alain M. P.	Aylmer			CA
Nielsen; Klaus	Richmond			CA
Ruckerbauer; Gerda M.	Nepean			CA
Samagh; Bakhshish S.	Nepean			CA
Hare; William C. D.	North Gower			CA

US-CL-CURRENT: 435/235.1; 435/239, 435/350, 435/948

ABSTRACT:

Permanent infection of a cell line such as a canine thymus cell line with a

file://C:\TEMP\6LG6MHCL.htm

11/19/04

retrovirus such as equine infectious anemia virus and bovine Maedi-Visna-like virus is now possible. By culturing such an infected cell line under appropriate conditions, it is now possible to produce large quantities of viral antigens on a continuous basis. Such antigens are useful in for diagnostics and research.

7 Claims, 7 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMMC	Draw Des
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☐ 3. Document ID: US 5006463 A

L1: Entry 3 of 5

File: USPT

Apr 9, 1991

US-PAT-NO: 5006463  
DOCUMENT-IDENTIFIER: US 5006463 A

TITLE: Immunoassays for discriminating between brucellosis infections and vaccinations

DATE-ISSUED: April 9, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cherwonogrodzky; John W.	Kanata			CA
Duncan; J. Robert	Nepean			CA
Nielsen; Klaus	Richmond			CA
Wright; Peter F.	Richmond			CA
Bundle; David R.	Ottawa			CA
Perry; Malcolm B.	Ottawa			CA

US-CL-CURRENT: 435/7.32; 424/234.1, 424/252.1, 435/101, 435/174, 435/34, 435/810, 435/822, 436/501, 436/518, 436/543, 436/808, 436/809, 436/811, 530/350, 530/387.5, 530/388.4, 530/812, 530/825

ABSTRACT:

A method is disclosed for discriminating between cattle vaccinated against and those infected with Brucella spp. The method involves immunoassay using a purified polysaccharide containing 4,6-dideoxy-4-acylamido-D-mannopyranosyl units obtained from B. abortus or from cross-reacting organisms, and results in improved differentiation between vaccinated and infected animals. Test kits are also disclosed for performing the assay and a process is disclosed for obtaining the O-chain polysaccharides in high purity and yield.

13 Claims, 3 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMMC	Draw Des
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☐ 4. Document ID: WO 9841243 A1

PUB-NO: WO009841243A1

DOCUMENT-IDENTIFIER: WO 9841243 A1

TITLE: METHOD OF THERMALLY REDUCING THE CONTAMINATION WITH PATHOGENIC ORGANISMS IN ANIMAL ENVIRONMENTS

PUBN-DATE: September 24, 1998

## INVENTOR-INFORMATION:

NAME

COUNTRY

NIELSEN, KLAUS

DK

INT-CL (IPC): A61 L 2/00

EUR-CL (EPC): A01M021/04; A61L002/07

## ABSTRACT:

CHG DATE=19990905 STATUS=O>A method of reducing the contamination with pathogenic organisms associated with a material surface in an animal environment, the method comprising at least partially inactivating said organisms by applying onto said surface thermal energy initially contained in water vapour at a pressure exceeding 1 bar. The thermal energy is applied by releasing pressurized water vapour onto the surface whereby the thermal energy is derived from a transition of the state of the water vapour from the gaseous to the liquid state at a temperature in the range of 90-110 DEG C.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KNOW	Draw. Des.
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☐ 5. Document ID: EP 715809 A2

L1: Entry 5 of 5

File: EPAB

Jun 12, 1996

PUB-NO: EP000715809A2

DOCUMENT-IDENTIFIER: EP 715809 A2

TITLE: Method of improving indoor air quality by thermally inactivating fungi on building surfaces

PUBN-DATE: June 12, 1996

## INVENTOR-INFORMATION:

NAME

COUNTRY

NIELSEN, KLAUS

DK

INT-CL (IPC): A01 M 19/00; A01 M 21/04; E04 B 1/72

EUR-CL (EPC): A01M001/24; A01M019/00

## ABSTRACT:

CHG DATE=19990617 STATUS=O> A method of improving the indoor air quality in a building comprising at least partially inactivating fungal mycelia and spores associated with a building material surface by applying onto the surface thermal energy initially contained in water vapour at a pressure exceeding 1 bar, in an amount which is sufficient to at least partially inactivate said fungal mycelia and spores but essentially without causing damages to the surface material.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMHC	Draw. Des.
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Terms	Documents
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Search Results - Record(s) 1 through 62 of 62 returned.

☐ 1. Document ID: DE 10303828 A1

Using default format because multiple data bases are involved.

L2: Entry 1 of 62

File: DWPI

Aug 19, 2004

DERWENT-ACC-NO: 2004-582034

DERWENT-WEEK: 200457

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TITLE: Thermostatic radiator valve has thermostat elements that react both to the room temperature and the temperature of the return flow water, with the design of the two thermostat elements being different to reduce valve size

INVENTOR: NIELSEN, K ; SEERUP, J

PRIORITY-DATA: 2003DE-1003828 (January 31, 2003)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 10303828 A1</u>	August 19, 2004		006	F16K031/64

INT-CL (IPC): F16 K 31/64; F24 D 19/10; G05 D 23/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Summary	Claims	FIGS	Draw. Desc.
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☐ 2. Document ID: GB 2398117 A, WO 2004057278 A2

L2: Entry 2 of 62

File: DWPI

Aug 11, 2004

DERWENT-ACC-NO: 2004-525501

DERWENT-WEEK: 200452

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TITLE: Detection apparatus for detecting transmission of catalyst plugs through conduit leading to polymerization reactor, comprises radiation source arranged to direct optical radiation through light path, and optical radiation detector

INVENTOR: NIELSEN, K

PRIORITY-DATA: 2002GB-0030052 (December 23, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>GB 2398117 A</u>	August 11, 2004		000	G01N021/85
<u>WO 2004057278 A2</u>	July 8, 2004	E	031	G01F001/00

INT-CL (IPC): G01 F 1/00; G01 N 21/59; G01 N 21/85

BASIC-ABSTRACT:

NOVELTY - A detection apparatus comprises an optical radiation source located outside a conduit, a light path through the conduit, and an optical radiation detector. The radiation source is arranged to direct optical radiation through the light path such that it may be detected by the detector.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) determining the mass of material transmitted through a conduit by repeatedly detecting intensity of optical radiation reflected from material, detecting the speed of material moving through the conduit, multiplying the intensity and speed values to gain a result curve, integrating the result curve, and multiplying the integral of the result curve by a factor to gain the approximate absolute mass of the material; and

(b) a system for determining the mass of material transmitted through a pipe, comprising a radiation detector for detecting the intensity of optical radiation reflected from the material, a speed detector for detecting the speed at which the material is transmitted, a multiplication unit for multiplying the intensity values and the speed values together to create a result curve, an integration unit for integrating the result curve, a multiplication device for multiplying the integral of the result curve by a factor to gain the mass of the material, and a display device for displaying the result curve and mass values.

USE - The apparatus is used for detecting the transmission of catalyst plugs through a conduit leading to a polymerization reactor. It can be used in association with an apparatus for supplying catalyst plugs to a reactor. It is used to identify abnormal plugs from the output of the detector. It can be used to determine the approximate density of the material from the output of the detector and to determine an indication of mass flow of material based on the measured flow speed and the determined approximate density.

ADVANTAGE - The apparatus enables accurate monitoring of catalyst input into a reactor and consequently allows for a controlled polymerization process.

DESCRIPTION OF DRAWING(S) - The figure is a cross-sectional view of a light intensity detector.

Catalyst-carrying pipe 1

Sight glasses 2, 7

Laser 9

Laser beam 9a

Reflector 20

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des
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☐ 3. Document ID: AU 2003208312 A1, WO 2003076287 A1

L2: Entry 3 of 62

File: DWPI

Sep 22, 2003

DERWENT-ACC-NO: 2003-833395

DERWENT-WEEK: 200431

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TITLE: Plastic container, used as packaging, comprises bottom, annular sidewall with annular engagement area, skirt, and flap with different color from skirt

INVENTOR: NIELSEN, K

PRIORITY-DATA: 2002DK-0000359 (March 8, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>AU 2003208312 A1</u>	September 22, 2003		000	B65D043/02
<u>WO 2003076287 A1</u>	September 18, 2003	E	015	B65D043/02

INT-CL (IPC): B65 D 43/02; B65 D 43/26; B65 D 55/02

ABSTRACTED-PUB-NO: WO2003076287A

BASIC-ABSTRACT:

NOVELTY - Plastic container, comprises a bottom; an annular sidewall with an annular engagement area; a skirt arranged on the sidewall along the engagement area; and a flap with a different color from that of the skirt.

DETAILED DESCRIPTION - Plastic container (1), comprises a bottom; an annular sidewall (10) with an annular engagement area (15) arranged opposite the bottom and configured for cooperating with a lid; a skirt (20) arranged on the sidewall along the engagement area; and a flap (30) configured for being turnable around a turning connection (8), which is covered by the lid and arranged in proximity of the engagement area, from a first position, in which the flap extends in parallel with or approximately in parallel with the sidewall and upwards to a second position in which the flap is able to lift the lid out of engagement with at least a part of the engagement area. The flap has a different color than that of the skirt.

INDEPENDENT CLAIMS are also included for the following:

(a) an injection molding tool for manufacturing a container as above, defining a mold cavity for forming the container, comprising a first and a second supply conduit for plastics material, where the second supply conduit debouches in the area of the mold cavity in which the flap is formed, and the first and second supply conduits are connected to a source for a respective plastics material; and

(b) a method for manufacturing a container as above using the injection molding tool above, where the flow of plastics material from the respective sources is regulated such that the fronts of the plastics materials meet in proximity of the area.

USE - Useful as a packaging (claimed).

ADVANTAGE - The container allows a consumer to lift off the lid in an easy manner. There is a more clear indication of how the container should be opened. The container can be manufactured in an economically viable manner.

DESCRIPTION OF DRAWING(S) - The figure shows a molded plastics container, seen in an inclined view from above.

Container 1

Turning connection 8

Sidewall 10

Engagement area 15

Skirt 20

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des.
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☐ 4. Document ID: EP 1456943 A1, WO 2003055059 A1, AU 2002366885 A1

L2: Entry 4 of 62

File: DWPI

Sep 15, 2004

DERWENT-ACC-NO: 2003-559221

DERWENT-WEEK: 200460

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TITLE: Attenuation control for digital power converter in digital conversion system uses gain control shifting unit to limit attenuation of modulated signal

INVENTOR: NIELSEN, K ; SKOV ANDERSEN, K

PRIORITY-DATA: 2001SE-0004403 (December 21, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1456943 A1</u>	September 15, 2004	E	000	H03F003/217
<u>WO 2003055059 A1</u>	July 3, 2003	E	012	H03F003/217
<u>AU 2002366885 A1</u>	July 9, 2003		000	H03F003/217

INT-CL (IPC): H02 M 1/00; H02 M 1/000; H03 F 1/32; H03 F 1/322; H03 F 3/217

ABSTRACTED-PUB-NO: WO2003055059A

BASIC-ABSTRACT:

NOVELTY - A digital pulse code modulated to pulse width modulated modulator (4) generates a digital input signal and a pulse edge delay error correction control system (5) compensates errors in the power stage, while a gain shift from a feedback unit (8) is applied to control the control system and decrease power supplied to a power supply (6) from a power supply (7) when attenuation of the modulated signal reaches a predefined level.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is included for an attenuation control system.

USE - Attenuation control of digital signal in high precision DC-AC power converter such as used in high efficiency audio amplification.

ADVANTAGE - Matches dynamic range of attenuated signal in certain range.

DESCRIPTION OF DRAWING(S) - The drawing shows the system

Modulator 4

Correction control system 5

Power supplies 6,7

Feedback unit 8

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des.
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☐ 5. Document ID: EP 1456944 A1, WO 2003055060 A1, AU 2002366893 A1

L2: Entry 5 of 62

File: DWPI

Sep 15, 2004

DERWENT-ACC-NO: 2003-541904  
DERWENT-WEEK: 200460  
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TITLE: Synchronized controlled oscillation modulator for audio amplifier has controlled oscillation modulator and synchronizing oscillator signal generator connected to it

INVENTOR: LIND HANSEN, J; NIELSEN, K

PRIORITY-DATA: 2001SE-0004401 (December 21, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1456944 A1</u>	September 15, 2004	E	000	H03F003/38
<u>WO 2003055060 A1</u>	July 3, 2003	E	023	H03F003/38
<u>AU 2002366893 A1</u>	July 9, 2003		000	H03F003/38

INT-CL (IPC): H03 F 3/38

ABSTRACTED-PUB-NO: WO2003055060A  
BASIC-ABSTRACT:

NOVELTY - The synchronized controlled oscillation modulator includes at least one controlled oscillation modulator (5) and a synchronizing oscillator signal generator (1) connected to the modulator.

USE - For a self-oscillating modulator, especially for precision PWM-based DC-AC conversion systems such as high efficiency audio power amplification and also DC-DC and AC-AC converters.

ADVANTAGE - Improves power conversion in any system.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of the modulator.

Synchronizing oscillator signal generator 1

Controlled oscillation modulator 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des.
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☐ 6. Document ID: US 6555774 B1

L2: Entry 6 of 62

File: DWPI

Apr 29, 2003

DERWENT-ACC-NO: 2004-019637  
DERWENT-WEEK: 200402  
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TITLE: Lever keyswitch for keyboards, has lever assembly cantilevering button from spine, which has lever and offset piece deflected in opposite angular directions, during pressing of button

INVENTOR: NIELSEN, K

PRIORITY-DATA: 2000US-0628930 (July 28, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 6555774 B1</u>	April 29, 2003		008	H01H009/26

INT-CL (IPC): H01 H 9/26

ABSTRACTED-PUB-NO: US 6555774B

BASIC-ABSTRACT:

NOVELTY - A resilient lever assembly cantilevering a button (12d) from a spine (14) attached to an electronic device, has an elongate resilient U-shaped lever (50d) with parallel arms (56d,58d) extended from the spine, and an elongate resilient offset piece (52d) extended from center of the lever to the button. The lever and offset piece are deflected in opposite angular directions during pressing of the button, such that the button movement is linear.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) electronic device; and
- (2) keyswitch assembly.

USE - For electronic devices (claimed) e.g. keyboards, mice, game machines, consumer electronics.

ADVANTAGE - Keyswitch is quickly and easily installed in the electronic device.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of lever keyswitch.

lever keyswitch(12d) button 10d

spine 14

lever 50d

offset piece 52d

arms 56d,58d

distal ends 60d,62d

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	EMMC	Draw. Des.
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☐ 7. Document ID: AU 2002344253 A1, WO 200297434 A1, EP 1402257 A1

L2: Entry 7 of 62

File: DWPI

Dec 9, 2002

DERWENT-ACC-NO: 2003-140507

DERWENT-WEEK: 200452

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TITLE: Diagnosing diabetes in human, by determining presence or level of expression of marker proteins e.g. citrate synthase, fructose-bisphosphate aldolase A, glyceraldehyde-3-phosphate-dehydrogenas- e

INVENTOR: FEY, S J; KARLSEN, A E ; LARSEN, P M ; NERUP, J ; NIELSEN, K ; NERUP, J R

PRIORITY-DATA: 2001DK-0000852 (May 29, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 2002344253 A1	December 9, 2002		000	G01N033/50
WO 200297434 A1	December 5, 2002	E	049	G01N033/50
EP 1402257 A1	March 31, 2004	E	000	G01N033/50

INT-CL (IPC): C12 Q 1/68; G01 N 33/50

ABSTRACTED-PUB-NO: WO 200297434A

BASIC-ABSTRACT:

NOVELTY - Diagnosing (M1) diabetes comprising determining expression of any one of 109 marker proteins (MP) (e.g. citrate synthase) given in the specification, in a biological sample, or its derivatives and modified forms having at least 80% homology with MP, where the isoelectric point of MP is determined by isoelectric focusing, and molecular weight is determined on polyacrylamide gel, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) determining the predisposition in a human for diabetes, by determining the presence or relative level of MP in a biological sample from the human;
- (2) treating diabetes, or preventing or delaying the onset of diabetes in a human, by altering the expression of MP, or administering MP, a nucleotide sequence coding for MP, an antibody for MP, a nucleic acid fragment capable of binding to MP, or a compound capable of binding to MP, to the human;
- (3) determining the likelihood of an agent having a therapeutic effect in the treatment of diabetes, by determining the level of expression of one or more MP, before and after exposing a test model to the agent and comparing the levels;
- (4) determining the effect of a compound in the treatment of diabetes, by determining the level of expression of one or more MP;
- (5) determining the level of effect of a compound used in the treatment of diabetes, by determining the level of expression of one or more MP, before and after exposing a test model to the agent;
- (6) determining the nature or cause of diabetes in a human having or susceptible to the disease, by establishing the level of expression of the MP in relation to a model;
- (7) a nucleic acid fragment (I), where the nucleic acid is DNA, RNA, locked nucleoside analog (LNA) or other derivatives comprising a nucleotide sequence which codes for MP;
- (8) a nucleic acid fragment which hybridizes with (I) or its part;
- (9) an antibody (II), ligand, aptomer, antiomere, peptide, hybrid molecules and other synthetic molecules able to bind to the MP;
- (10) a test kit for diagnosing diabetes or a genetic predisposition for diabetes in a mammal, comprising a binding unit which specifically binds to MP or an antibody for MP, a nucleic acid fragment capable of binding to MP, or a compound capable of binding to MP, to the human, an unit for detecting binding if any, or the level of binding, of the binding unit to at least one of the marker proteins or at least one of the peptides or at least one of the nucleic acid fragments, and an unit for

correlating whether binding if any, or the level of binding, to the binding unit is indicative of the individual mammal having a significantly higher likelihood of having diabetes or a genetic predisposition for having diabetes;

(11) determining the effect of a substance, by using a mammal which has been established to be an individual having a high likelihood of having diabetes or genetic predisposition for having diabetes by (M1), by administering the substance to the individual and determining the effect of the substance;

(12) a pharmaceutical composition comprising a substance which is capable of regulating the expression of a nucleic acid fragment coding for a part of MP, MP, antibody for MP, nucleic acid fragment capable of binding to MP, or a compound capable of binding to MP, to the human;

(13) constructing a cell or a cell line expressing MP, modifications and derivatives of MP, so as to have at least 80% (e.g. 90% or 95%) homology with MP, e.g. by introduction of at least one DNA sequence encoding MP into a cell, such as a self-cell; and

(14) a cell or cell line (III) obtained.

ACTIVITY - Antidiabetic.

No suitable data given.

MECHANISM OF ACTION - None given.

USE - M1 is useful for diagnosing diabetes in humans. (I) and (II) are useful for detecting the presence of the peptide. (I), (II), or nucleic acid fragment capable of binding to MP is useful for treating diabetes, or preventing or delaying the onset of diabetes in a human (claimed). (III) is useful for drug testing or treating a person suffering from diabetes and as a part of pharmaceutical composition.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMOC	Draw. Des.
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☐ 8. Document ID: CN 1509583 A, WO 200293973 A1, EP 1391137 A1, KR 2004004607 A, AU 2002302881 A1, US 20040161122 A1

L2: Entry 8 of 62

File: DWPI

Jun 30, 2004

DERWENT-ACC-NO: 2003-059094

DERWENT-WEEK: 200462

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TITLE: Audio signal converter has switching stage and electro-acoustic transducer that are mechanically and electrically integrated into single operational unit

INVENTOR: NIELSEN, K

PRIORITY-DATA: 2001SE-0001720 (May 16, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1509583 A	June 30, 2004		000	H04R001/00
WO 200293973 A1	November 21, 2002	E	026	H04R001/00
EP 1391137 A1	February 25, 2004	E	000	H04R001/00
KR 2004004607 A	January 13, 2004		000	H04R003/00
AU 2002302881 A1	November 25, 2002		000	H04R001/00

INT-CL (IPC): H03 M 1/00; H04 B 3/00; H04 R 1/00; H04 R 3/00; H04 R 5/04; H04 R 19/00; H03 M 1/00; H04 R 5/04

ABSTRACTED-PUB-NO: WO 200293973A

BASIC-ABSTRACT:

NOVELTY - An electro-acoustic transducer (19) is directly driven by a pulse train from a switching stage (15), without the need for filtering and outputs audio waves. The switching stage and the transducer are integrated mechanically and electrically into a single operational unit, such that the unit is directly connected to main power supply (12).

USE - Audio signal converter.

ADVANTAGE - Eliminates need for cables and connectors and thus obtains an improved audio conversion with reduced EMI, minimizes high frequency losses and improves mechanical stability and robustness of the audio signal converter, since the switching stage and transducer are mechanically and electrically arranged into the single operational unit.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of single stage AC pulse modulated transducer.

Main power supply 12

Switching stage 15

Electro-acoustic transducer 19

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des.
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☐ 9. Document ID: DE 10108520 B4, DE 10108520 A1

L2: Entry 9 of 62

File: DWPI

Jul 8, 2004

DERWENT-ACC-NO: 2002-659004

DERWENT-WEEK: 200445

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TITLE: Heating valve unit has one stop on stop carrier able to move parallel to axis but not turn in one of two casing parts

INVENTOR: JENSEN, J C; MARKVART, A ; NIELSEN, K

PRIORITY-DATA: 2001DE-1008520 (February 22, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 10108520 B4	July 8, 2004		000	F16K031/60
DE 10108520 A1	September 19, 2002		009	F16K031/60

INT-CL (IPC): F16 K 31/60; F16 K 31/64

ABSTRACTED-PUB-NO: DE 10108520A

BASIC-ABSTRACT:

NOVELTY - The valve unit has two casing parts: a socket (1) and a turning handle (7) screwed into it, turning round an axis (24) between two stops (23, 5) acting with each other so that the handle is not unscrewed from the socket. One of the stops (23) is mounted on a stop carrier (16) which can be moved parallel to the axis (24), but not turned, in one of the two casing parts.

USE - For temperature setting in heating systems.

ADVANTAGE - Easier to dismantle.

DESCRIPTION OF DRAWING(S) - The drawing shows a sectioned view of the unit in minimum setting.

Socket 1

stops 5, 23

Turning handle 7

Stop carrier 16

Axis 24

Full	Title	Creation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des.
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☐ 10. Document ID: AU 2002231611 A1, WO 200264006 A1

L2: Entry 10 of 62

File: DWPI

Aug 28, 2002

DERWENT-ACC-NO: 2002-575792

DERWENT-WEEK: 200427

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TITLE: Combination of dispensing device and container for batch dispensing granular product such as coffee comprises bottom portion screwed onto container neck and top portion attached to bottom with disc in between to allow dispensing

INVENTOR: NIELSEN, K; NIELSEN, S E L

PRIORITY-DATA: 2001DK-0001323 (September 11, 2001), 2001DK-0000234 (February 13, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>AU 2002231611 A1</u>	August 28, 2002		000	A47J047/04
<u>WO 200264006 A1</u>	August 22, 2002	E	044	A47J047/04

INT-CL (IPC): A47 G 19/34; A47 J 47/04

ABSTRACTED-PUB-NO: WO 200264006A

BASIC-ABSTRACT:

NOVELTY - The combination comprises attachment means for integral or releasable attachment of the dispensing device to the container such that the dispensing device obstructs the dispensing opening in the container. The dispensing device has a bottom (62) screwed to neck of container and a top(63) fixedly attached to bottom with a disc portion(61) in between. The bottom has a plate(64) with an aperture to allow product to flow from container into passage(72) in the disc portion when the disc portion is in a first rotational position. The top has a plate(65) with an aperture

to allow product in passage(72) to be dispensed when disc portion is in second rotational position.

USE - Esp. for batch dispensing granular product such as ground coffee, freeze-dried instant coffee, milk powder, sugar, detergent powder and the like.

ADVANTAGE - Provides effective sealing to protect the material from long term contact with atmosphere which will make the granular material cake or dissolve by absorbing moisture and be ruined. Provides precise and uniform batchwise dispensing.

DESCRIPTION OF DRAWING(S) - Shows a schematic view of the device esp. for dispensing hygroscopic granular material

disc portion 61

bottom and top of dispensing device 62,63

plates 64,65

passage 72

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Desc.
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☐ 11. Document ID: DE 10049328 B4, DE 10049328 A1

L2: Entry 11 of 62

File: DWPI

Feb 12, 2004

DERWENT-ACC-NO: 2002-436567

DERWENT-WEEK: 200412

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TITLE: Versatile, separable valve knob including thermostat, includes supportive surface carried on separately-manufactured base

INVENTOR: KRISTENSEN, P; MOBERG, E ; NIELSEN, K ; PEDERSEN, M

PRIORITY-DATA: 2000DE-1049328 (October 5, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 10049328 B4	February 12, 2004		000	F16K031/64
DE 10049328 A1	May 8, 2002		006	F16K031/64

INT-CL (IPC): F16 K 31/64

ABSTRACTED-PUB-NO: DE 10049328A

BASIC-ABSTRACT:

NOVELTY - A supportive surface (116) is carried by a separately- manufactured base (102). The design enables matching of the knob, which includes the thermostat, with different types of valve.

USE - A separable knob including a thermostat, for a valve.

ADVANTAGE - The force of the compression spring used for restoration, is matched correctly in different cases. The base is a simple adaptor section.

DESCRIPTION OF DRAWING(S) - A vertical cross section through the separated knob and base section is shown.

base 102

supportive surface 116

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw. Des.
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☐ 12. Document ID: US 20040050659 A1, WO 200226598 A2, AU 200191638 A, EP 1332100 A2

L2: Entry 12 of 62

File: DWPI

Mar 18, 2004

DERWENT-ACC-NO: 2002-304813

DERWENT-WEEK: 200421

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TITLE: Correct article orientation determination method for use on conveyor involves determining if use of tilting device is needed based on the dimensions of the articles

INVENTOR: JENSEN, A M; NIELSEN, K

PRIORITY-DATA: 2000DK-0001424 (September 26, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040050659 A1	March 18, 2004		000	B65G043/08
WO 200226598 A2	April 4, 2002	E	046	B65G047/24
AU 200191638 A	April 8, 2002		000	B65G047/24
EP 1332100 A2	August 6, 2003	E	000	B65G047/24

INT-CL (IPC): B65 G 43/08; B65 G 47/24

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw. Des.
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☐ 13. Document ID: CN 1471758 A, WO 200225357 A2, AU 200216318 A, EP 1323231 A2, KR 2003041991 A, JP 2004510397 W

L2: Entry 13 of 62

File: DWPI

Jan 28, 2004

DERWENT-ACC-NO: 2002-352057

DERWENT-WEEK: 200426

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TITLE: A controlled self-oscillation modulator for a switching power conversion system includes a higher order oscillating loop of a forward block with an input voltage and a feedback signal from a load current and voltage feedback block

INVENTOR: NIELSEN, K

PRIORITY-DATA: 2000SE-0003342 (September 19, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
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CN 1471758 A	January 28, 2004		000	H03F003/217
WO 200225357 A2	March 28, 2002	E	016	G02F000/00
AU 200216318 A	April 2, 2002		000	G02F000/00
EP 1323231 A2	July 2, 2003	E	000	H03F003/217
KR 2003041991 A	May 27, 2003		000	H03F003/217
JP 2004510397 W	April 2, 2004		030	H02M007/48

INT-CL (IPC): G02 F 0/00; G05 F 1/10; H02 M 3/00; H02 M 7/48; H03 F 1/32; H03 F 3/217

ABSTRACTED-PUB-NO: WO 200225357A

BASIC-ABSTRACT:

NOVELTY - A higher order oscillating loop comprises a forward block (22) receiving an input voltage and a feedback signal from a feedback block (21), and deriving a process error modulating signal to a non-hysteresis comparator referenced to a voltage. The resulting pulse modulated signal is power amplified in a switching power conversion stage to generate a power pulse signal to an inductive load. The measured load current and voltage are connected to the feedback block.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a power conversion system.

USE - The controlled self-oscillation modulator is used for a switching power conversion system.

ADVANTAGE - The modulator provides stable oscillating conditions with improved performance, simple circuitry since no carrier generator is needed, and improved robustness. There is no feedback noise or poor carrier signal.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of a controlled self-oscillation modulator.

Feedback block 21

Forward block 22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 14. Document ID: US 6362702 B1

L2: Entry 14 of 62

File: DWPI

Mar 26, 2002

DERWENT-ACC-NO: 2002-498061

DERWENT-WEEK: 200253

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TITLE: Controlled self-oscillation modulator for power conversion system, includes feedback and forward units having transfer functions being adapted to generate feedback signal and modulating signal respectively

INVENTOR: FREDERIKSEN, T; NIELSEN, K

PRIORITY-DATA: 2000US-0675647 (September 29, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
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INT-CL (IPC): H03 C 1/00; H03 C 1/06; H03 F 1/32; H03 F 3/217; H03 F 3/38

ABSTRACTED-PUB-NO: US 6362702B

BASIC-ABSTRACT:

NOVELTY - A feedback unit has a transfer function adapted to generate a feedback signal based on current value measured by a measurement unit. A forward unit has a transfer function adapted to generate a modulating signal based on the feedback signal and an input signal.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for power conversion system.

USE - Controller self-oscillation modulator for switching power conversion systems such as DC-AC conversion system e.g. power amplifiers, DC-DC and AC-AC conversion systems.

ADVANTAGE - Improves load control and eliminates the need of load compensation by measuring the current supplied to the load. Simplifies design, as the current measurement itself implements a transfer function.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of controlled self-oscillation modulator.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KIMC	Draw. Des.
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☐ 15. Document ID: US 6580418 B1, WO 200165329 A1, AU 200138688 A

L2: Entry 15 of 62

File: DWPI

Jun 17, 2003

DERWENT-ACC-NO: 2001-582200

DERWENT-WEEK: 200341

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TITLE: Haptic feedback joystick for computer software program, applies input motion to control handle, which causes control handle shaft to be pivotly displaced about center point

INVENTOR: GROME, D C; NIELSEN, K T ; GROME, D ; NIELSEN, K

PRIORITY-DATA: 2000US-0515967 (February 29, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 6580418 B1</u>	June 17, 2003		000	G09G005/08
<u>WO 200165329 A1</u>	September 7, 2001	E	053	G05G009/047
<u>AU 200138688 A</u>	September 12, 2001		000	G05G009/047

INT-CL (IPC): G05 G 9/047; G09 G 5/08

ABSTRACTED-PUB-NO: WO 200165329A

BASIC-ABSTRACT:

NOVELTY - An end cap (60) and hemi-spherical shell are coupled to control handle shaft (14) extending from control handle. An input motion applied to the control handle causes handle shaft to be pivotly displaced about center point. Two angular

position sensors produce output signal indicating direction and extend of rotation of the control handle.

USE - For controlling machinery, computer software program such as computer games.

ADVANTAGE - If user releases the handle, spring bias force causes the handle to return to centered position about X-axis.

DESCRIPTION OF DRAWING(S) - The figure shows an exploded assembly view of components and sub-assemblies of joystick.

Control handle shaft 14

End cap 60

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draws	Des
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☐ 16. Document ID: DK 200001841 A, DK 173737 B, EP 1212933 A2

L2: Entry 16 of 62

File: DWPI

Aug 20, 2001

DERWENT-ACC-NO: 2001-498028

DERWENT-WEEK: 200248

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TITLE: Agricultural sowing machine, has secondary hoppers arranged to be lifted free of attached sowing unit, each secondary hopper being mounted on vertical axle in order to pivot in horizontal plane in relation to side frame

INVENTOR: KAASTRUP, S; KNUDSEN, M ; NIELSEN, K

PRIORITY-DATA: 2000DK-0001841 (December 7, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DK 200001841 A</u>	August 20, 2001		001	A01C007/00
<u>DK 173737 B</u>	August 20, 2001		000	A01C007/00
<u>EP 1212933 A2</u>	June 12, 2002	E	017	A01C015/00

INT-CL (IPC): A01 B 73/02; A01 C 7/00; A01 C 15/00; B07 B 4/02

ABSTRACTED-PUB-NO: DK 200001841A

BASIC-ABSTRACT:

NOVELTY - The machine comprises a central frame (2) supporting a central hopper (3) and two side frames (4) that each support a secondary hopper (5), which is connected to and filled from the central hopper through an auger conveyor (7), each of the side frames being interchangeable between a working position perpendicular to a transport direction and a transport position where they are parallel with the transport direction. Each secondary hopper has a sowing unit attached and comprising a number of down pipes.

DETAILED DESCRIPTION - The secondary hoppers are arranged to be lifted free of the attached sowing unit, and each secondary hopper is mounted on a vertical axle in order to pivot in a horizontal plane in relation to the side frame. Each side frame is mounted on a horizontal axle in relation to the central frame and comprises a parallelogram in order to pivot in a vertical plane with the hopper maintained in a vertical position.

USE - As a large width sowing machine.

ADVANTAGE - Is mechanically simple and makes possible conversion of the machine from a working position to a transport position simply by using a one double-acting hydraulic cylinder.

DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of the sowing machine.

Central frame 2

Central hopper 3

Side frames 4

Secondary hopper 5

Auger conveyor 7

ABSTRACTED-PUB-NO:

EP 1212933A EQUIVALENT-ABSTRACTS:

NOVELTY - The machine comprises a central frame (2) supporting a central hopper (3) and two side frames (4) that each support a secondary hopper (5), which is connected to and filled from the central hopper through an auger conveyor (7), each of the side frames being interchangeable between a working position perpendicular to a transport direction and a transport position where they are parallel with the transport direction. Each secondary hopper has a sowing unit attached and comprising a number of down pipes.

DETAILED DESCRIPTION - The secondary hoppers are arranged to be lifted free of the attached sowing unit, and each secondary hopper is mounted on a vertical axle in order to pivot in a horizontal plane in relation to the side frame. Each side frame is mounted on a horizontal axle in relation to the central frame and comprises a parallelogram in order to pivot in a vertical plane with the hopper maintained in a vertical position.

USE - As a large width sowing machine.

ADVANTAGE - Is mechanically simple and makes possible conversion of the machine from a working position to a transport position simply by using a one double-acting hydraulic cylinder.

DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of the sowing machine.

Central frame 2

Central hopper 3

Side frames 4

Secondary hopper 5

Auger conveyor 7

Full	Title	Creation	Front	Review	Classification	Date	Reference			Claims	RMIC	Draw. Des.
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☐ 17. Document ID: DK 200000005 A

L2: Entry 17 of 62

File: DWPI

Jul 6, 2001

DERWENT-ACC-NO: 2001-476873  
DERWENT-WEEK: 200152  
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TITLE: Method for controlling heating installation interrupts remote heat water flow through heat exchanger when installation is in no-load condition or there is no heat energy requirement

INVENTOR: FAURSCHOU, J; HOULBERG, S ; NIELSEN, K

PRIORITY-DATA: 2000DK-0000005 (January 5, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DK 200000005 A</u>	July 6, 2001		002	F24D019/10

INT-CL (IPC): F24 D 19/10

ABSTRACTED-PUB-NO: DK 200000005A  
BASIC-ABSTRACT:

NOVELTY - The method for controlling a heating installation interrupts remote heat water flow through a heat exchanger when the installation is in a no-load situation or there is no heat energy requirement. It uses a pressure-controlled regulator (19) which has a difference pressure valve with a membrane function, which can possibly be combined with a thermostat control (21).

DETAILED DESCRIPTION - The regulator can control both the primary side outlet pipe (3) and the secondary side inlet pipe (9) to the heat exchanger (4).

USE - For controlling a heating installation.

ADVANTAGE - No-load operation loss is eliminated, with the circulation pump being stopped. It is possible to do without a Summer valve with corresponding manual operation.

DESCRIPTION OF DRAWING(S) - The single figure illustrates the circuit layout.

primary side outlet pipe 3

heat exchanger 4

secondary side inlet pipe 9

pressure-controlled regulator 19

thermostat control 21

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des
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☐ 18. Document ID: DE 19946797 C1

L2: Entry 18 of 62

File: DWPI

May 31, 2001

DERWENT-ACC-NO: 2001-317977  
DERWENT-WEEK: 200134  
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TITLE: Cap for the thermostat valve of a heating radiator has a limit unit to show

<http://westbrs.9000/bin/gate.exe?f=TOC&state=p2k72l.3&ref=2&dbname=PGPB,USPT,US...> 11/19/04

the max permitted setting of the rotating cap against the housing together with a pointer and a scale

INVENTOR: LARSEN, H E; NIELSEN, K

PRIORITY-DATA: 1999DE-1046797 (September 29, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 19946797 C1	May 31, 2001		005	F24D019/10

INT-CL (IPC): F16 K 31/64; F16 K 35/10; F24 D 19/10

ABSTRACTED-PUB-NO: DE 19946797C

BASIC-ABSTRACT:

NOVELTY - The cap for a thermostat valve, at a heating radiator, has a limit unit (9,10) with an indicator (17) to show the position at a scale (8) where the rotating grip (2) has the max. permitted rotation in relation to the housing (3). The pointer (19) is between the two sections (9,10) of the limit.

USE - The structure is the cap for a thermostat valve, at a heating radiator, where the rotating cap gives the thermostat setting.

ADVANTAGE - The cap gives a comfortable thermostat operation, with a clear indication of the setting.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic view of the thermostat valve cap.

rotating grip cap 2

housing 3

scale 8

limit unit 9,10

limit indicator 17

pointer 19

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw Des
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☐ 19. Document ID: DE 19949136 B4, EP 1103879 A1, DE 19949136 A1, CN 1291689 A, CZ 200003345 A3, RU 2191311 C2, EP 1103879 B1, DE 50000910 G, ES 2186612 T3

L2: Entry 19 of 62

File: DWPI

Feb 12, 2004

DERWENT-ACC-NO: 2001-368993

DERWENT-WEEK: 200412

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TITLE: Actuation fixture for valve with control circuit controlling heating according to control signal and position signal from position measurement device

INVENTOR: LARSEN, H E; NIELSEN, K; SEERUP, J

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 19949136 B4	February 12, 2004		000	F16K031/64
EP 1103879 A1	May 30, 2001	G	007	G05D023/02
DE 19949136 A1	June 7, 2001		000	F16K031/66
CN 1291689 A	April 18, 2001		000	F16K031/66
CZ 200003345 A3	July 11, 2001		000	F16K031/66
RU 2191311 C2	October 20, 2002		000	F16K031/66
EP 1103879 B1	December 11, 2002	G	000	G05D023/02
DE 50000910 G	January 23, 2003		000	G05D023/02
ES 2186612 T3	May 16, 2003		000	G05D023/02

INT-CL (IPC): F16 K 31/00; F16 K 31/64; F16 K 31/66; F16 K 37/00; F24 D 19/10; F25 B 41/06; G05 D 23/02

ABSTRACTED-PUB-NO: EP 1103879A

BASIC-ABSTRACT:

NOVELTY - Position measurement device (11), a linear operating differential transformer, provides position signal, according to position of control element (5) or component displaced by control element. Control circuitry controls heating of ohmic resistance (H) according to control signal and position signal.

DETAILED DESCRIPTION - Ohmic resistance (H) is next to thermal stretch material (3). Heating alters temperature and volume of stretch material, and control element (5) is displaced and opening location of valve. Position measurement device (11), a linear operating differential transformer, provides position signal, according to position of control element (5) or component displaced by control element. Control circuitry controls heating according to control signal and position signal. Transformer has primary winding and two phase opposed secondary windings connected with support (1) and core connected with control element or with component displaceable by control element. Deviation of ambient temperature from nominal value is used to determine nominal valve lift, corresponding to water level needed to reduce value. Actual valve lift is registered and regulated according to current feed to heating resistor which heats wax shell and causes movement of valve pin.

DESCRIPTION OF DRAWING(S) - Longitudinal section of actuation device

Support 1

Thermal stretch material 3

Control element 5

Position measurement device 11

Ohmic resistance H

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMO	Draw. Des.
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☐ 20. Document ID: EP 1081571 A2, DE 20020804 U1

L2: Entry 20 of 62

File: DWPI

Mar 7, 2001

DERWENT-ACC-NO: 2001-376540

DERWENT-WEEK: 200140

TITLE: Differential pressure regulator in district heating systems, has spindle provided with capillary channel which connects one side of diaphragm with diverted medium flowing through valve

INVENTOR: FAURSCHOU, J; HOULBERG, S ; NIELSEN, K

PRIORITY-DATA: 1999DK-0000314 (September 2, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1081571 A2</u>	March 7, 2001	E	006	G05D016/06
<u>DE 20020804 U1</u>	June 7, 2001		000	G05D016/08

INT-CL (IPC): G01 L 13/02; G05 D 16/06; G05 D 16/08

ABSTRACTED-PUB-NO: EP 1081571A

BASIC-ABSTRACT:

NOVELTY - The valve (1) has a valve seat (4) and a cooperating valve cone arranged on a spindle (6). The spindle is provided with the capillary channel (7) which connects the side (13) of the diaphragm (9) with the diverted medium (2) flowing through the valve (1). An adjustable throttle valve is provided on the inlet side of the valve for regulating volume of the regulated medium (3).

USE - For stabilization of utility pressure in district heating system having access to hot springs.

ADVANTAGE - The regulator has simplified structure and ensures high reliability, stability and regulating accuracy. The regulator is easily mounted and requires reduced space due to the compact structure.

DESCRIPTION OF DRAWING(S) - The figure shows the sectional view of the differential pressure regulator.

Valve 1

Diverted medium 2

Regulated medium 3

Valve seat 4

Spindle 6

Capillary channel 7

Diaphragm 9

Side of diaphragm 13

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	Index	Draw. Des.
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☐ 21. Document ID: EP 1046974 A2, RU 2182686 C2, DE 19917780 C1, CN 1271080 A, CZ 200001456 A3

L2: Entry 21 of 62

File: DWPI

Oct 25, 2000



DERWENT-ACC-NO: 2000-620369  
DERWENT-WEEK: 200249  
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TITLE: Heating body valve control fitting has ring for covering gap between housing and wraparound nut that is rotatably mounted on housing and engages nut in rotary fashion

INVENTOR: HANSEN, M I; NIELSEN, K; PETERSEN, S G; RASMUSSEN, B K; NILSEN, K;  
RASMUSSEN, B

PRIORITY-DATA: 1999DE-1017780 (April 20, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1046974 A2</u>	October 25, 2000	G	007	G05D023/02
<u>RU 2182686 C2</u>	May 20, 2002		000	F24D019/10
<u>DE 19917780 C1</u>	January 4, 2001		000	F24D019/10
<u>CN 1271080 A</u>	October 25, 2000		000	F24D019/10
<u>CZ 200001456 A3</u>	May 16, 2001		000	F16K031/60

INT-CL (IPC): F16 K 31/00; F16 K 31/60; F24 D 19/10; G05 D 23/02

ABSTRACTED-PUB-NO: EP 1046974A

BASIC-ABSTRACT:

NOVELTY - The control fitting has a housing (2), a connector fitting with an inner engagement geometry and an external thread, a wraparound nut (17) rotatable on the external thread and a ring (19) for covering a gap between the housing and the wraparound nut. The ring is rotatably mounted on the housing and engages the nut in rotary fashion.

USE - For a heating body.

ADVANTAGE - Enables the intermediate vol. between the wraparound nut and housing without hindering assembly.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic sectional representation of a heating body thermostat fitting

housing 2

wraparound nut 17

ring 19

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Drawn Des
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☐ 22. Document ID: EP 1046973 A2, DE 19917781 C2, DE 19917781 A1, CN 1271067 A, CZ 200001457 A3, RU 2182998 C2

L2: Entry 22 of 62

File: DWPI

Oct 25, 2000

DERWENT-ACC-NO: 2000-620368  
DERWENT-WEEK: 200252  
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<http://westbrs.9000/bin/gate.exe?f=TOC&state=p2k72l.3&ref=2&dbname=PGPB,USPT,US...> 11/19/04

TITLE: Heating valve thermostatic fitting has thermostat element biased towards actuating element and mounted in carrier part that acts as thrust block for overpressure spring

INVENTOR: NIELSEN, K; NILSEN, K

PRIORITY-DATA: 1999DE-1017781 (April 20, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1046973 A2</u>	October 25, 2000	G	006	G05D023/02
<u>DE 19917781 C2</u>	August 1, 2002		000	F16K031/64
<u>DE 19917781 A1</u>	November 9, 2000		000	F16K031/64
<u>CN 1271067 A</u>	October 25, 2000		000	F16K031/64
<u>CZ 200001457 A3</u>	May 16, 2001		000	F16K031/64
<u>RU 2182998 C2</u>	May 27, 2002		000	F16K031/64

INT-CL (IPC): F16 K 31/60; F16 K 31/64; F16 K 31/68; G05 D 23/02

ABSTRACTED-PUB-NO: EP 1046973A

BASIC-ABSTRACT:

NOVELTY - The fitting has a housing contg. a thermostat element (11) with a pressure chamber whose vol. varies with the temp., an actuating element that interacts with the thermostat element and a safety device with an overpressure spring (18) mounted between the thermostat element and a housing part (3). The thermostat element is biased towards the actuating element and is mounted in a carrier part (10) that acts as a thrust block for the overpressure spring.

USE - For a heating valve.

ADVANTAGE - A short structural length is maintained.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic sectional representation of a heating valve thermostat fitting

thermostat element 11

overpressure spring 18

housing part 3

carrier part 10

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 23. Document ID: DE 50002840 G, WO 200061974 A1, DE 19916535 A1, AU 200038028 A, EP 1169593 A1, DE 19916535 C2, EP 1169593 B1

L2: Entry 23 of 62

File: DWPI

Aug 14, 2003

DERWENT-ACC-NO: 2000-665162

DERWENT-WEEK: 200361

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TITLE: Apparatus for reversibly adjusting a valve tappet, comprises switchover device

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.3&ref=2&dbname=PGPB,USPT,US...> 11/19/04

with inner and outer coupling elements which are rotatable relative to each other

INVENTOR: AAEN, C; KRISTENSEN, P ; LARSEN, H E ; LOLK, S ; NIELSEN, K ; SEERUP, J

PRIORITY-DATA: 1999DE-1016535 (April 13, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 50002840 G</u>	August 14, 2003		000	F16K031/68
<u>WO 200061974 A1</u>	October 19, 2000	G	020	F16K031/68
<u>DE 19916535 A1</u>	November 16, 2000		000	F16K031/64
<u>AU 200038028 A</u>	November 14, 2000		000	F16K031/68
<u>EP 1169593 A1</u>	January 9, 2002	G	000	F16K031/68
<u>DE 19916535 C2</u>	June 27, 2002		000	F16K031/64
<u>EP 1169593 B1</u>	July 9, 2003	G	000	F16K031/68

INT-CL (IPC): F16 D 1/108; F16 K 31/44; F16 K 31/64; F16 K 31/68; G05 D 23/02; G05 D 23:02

ABSTRACTED-PUB-NO: WO 200061974A

BASIC-ABSTRACT:

NOVELTY - The apparatus has a base (10) and a thermal actuator (3) with two parts (4,5) which are axially moveable relative to each other. In a first operating mode, the first part is supported on the base. In a second operating mode, the second part is supported on the base. In each mode, the part not supported on the base acts on an output member to actuate the tappet. The apparatus has a switch over device with inner and outer coupling elements. These are rotatable relative to each other about the actuator axis, at least within a limited angular range. In one angular position, these elements make the connection required for the first operating mode. In another angular position, they make the connection necessary for the second operating mode.

USE - For valve operation and adjustment.

ADVANTAGE - Switching between operating modes is easily possible. It is not necessary to exchange small components which could get lost.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic view of a valve.

actuation parts 1

valve 2

actuator 3

first part 4

second part 5

tappet 6

cover 7

carrier 8

safety spring 9

base 10

spindle 11

spindle 12  
return spring 13  
protrusion 14  
stop 15  
protrusion 16  
stop 17  
auxiliary spring 18  
pins 19

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	NUMC	Drawn Des
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☐ 24. Document ID: US 6664946 B1, DE 10008024 A1, FR 2793044 A1, GB 2352602 A, JP 2000322192 A, CN 1276553 A, KR 2001020640 A, TW 470908 A

L2: Entry 24 of 62

File: DWPI

Dec 16, 2003

DERWENT-ACC-NO: 2001-148010  
DERWENT-WEEK: 200382  
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TITLE: Twin-axle jointed computer input device and method for operating it configures positioning sensors to generate positioning information depicting a relative position between two grip handles.

INVENTOR: BROOKS, T W; MACK, W A ; NIELSEN, K ; MACK, W ; STIPES, M J

PRIORITY-DATA: 1999US-0255510 (February 22, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 6664946 B1</u>	December 16, 2003		000	G09G005/08
<u>DE 10008024 A1</u>	September 14, 2000		038	G06F003/033
<u>FR 2793044 A1</u>	November 3, 2000		000	G06F003/02
<u>GB 2352602 A</u>	January 31, 2001		000	G06F003/033
<u>JP 2000322192 A</u>	November 24, 2000		110	G06F003/033
<u>CN 1276553 A</u>	December 13, 2000		000	G06F003/023
<u>KR 2001020640 A</u>	March 15, 2001		000	G06F003/00
<u>TW 470908 A</u>	January 1, 2002		000	G06F003/033

INT-CL (IPC): A63 F 13/02; A63 F 13/06; G06 F 3/00; G06 F 3/02; G06 F 3/023; G06 F 3/033; G06 K 11/18; G09 G 5/08

ABSTRACTED-PUB-NO: DE 10008024A

BASIC-ABSTRACT:

NOVELTY - A system (10) has an input device (14), a computer display (15) and a computer (20). The input device can be any device like a joystick with a movable grip or section. It has two grip handles (16,18), a keypad (28) with buttons, a multi-switching directional input (30) and triggers (32).

USE - With computer action games.

ADVANTAGE - This device acts as an ergonomically advantageous device. Areas and shapes for movement are designed to reduce fatigue.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of a computer system for using an input device according to the present invention.

System 10

Input device 14

Computer display 15

Computer 20

Grip handles 16,18

Keypad 28

Multi-switching directional input 30

Triggers 32

Full	Title	Citation	Front	Review	Classification	Date	Reference	Index	Page	Claims	FIGS	Draw. Des.
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☐ 25. Document ID: EP 1020782 B1, EP 1020782 A2, DE 19901283 A1, DE 19901283 C2

L2: Entry 25 of 62

File: DWPI

Oct 13, 2004

DERWENT-ACC-NO: 2000-534331

DERWENT-WEEK: 200467

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TITLE: Arrangement for reversible valve stem displacement has mutually offset actuating pins and holder able to be displaced wrt. each other so holder can be selectively aligned with pins

INVENTOR: KRISTENSEN, P; LARSEN, H E ; NIELSEN, K ; SEERUP, J

PRIORITY-DATA: 1999DE-1001283 (January 15, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1020782 B1</u>	October 13, 2004	G	000	G05D023/02
<u>EP 1020782 A2</u>	July 19, 2000	G	006	G05D023/02
<u>DE 19901283 A1</u>	August 3, 2000		000	F16K031/64
<u>DE 19901283 C2</u>	May 3, 2001		000	F16K031/64

INT-CL (IPC): F16 K 31/64; G05 D 23/02

ABSTRACTED-PUB-NO: EP 1020782A

BASIC-ABSTRACT:

NOVELTY - The arrangement has a housing, a holder (4) for connection to a valve, a thermal actuator and two selectively operated actuating pins (10,14), each for a different displacement type. Both actuating pins are permanently mounted but mutually

offset and the pins and holder can be displaced wrt. each other so that the holder can be selectively aligned with one or other pin.

USE - For reversible displacement of a valve stem.

ADVANTAGE - Facilitates the changeover from one type of displacement to another.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic sectional representation of a displacement arrangement

holder 4

actuating pins 10,14

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMAC	Draw Des
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☐ 26. Document ID: MX 2001005380 A1, WO 200033448 A2, AU 200015031 A, EP 1138109 A2, KR 2001089521 A, CN 1329771 A, JP 2002532048 W

L2: Entry 26 of 62

File: DWPI

Apr 1, 2003

DERWENT-ACC-NO: 2001-182335

DERWENT-WEEK: 200415

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TITLE: Power conversion method using pulse width modulation, involves using N/2 paralleled PWM generators on each side of load, in which modulation is produced by N/2 phase shifted versions of carrier

INVENTOR: CHRISTENSEN, F S; FREDERIKSEN, T M ; NIELSEN, K

PRIORITY-DATA: 1998DK-0001574 (November 30, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>MX 2001005380 A1</u>	April 1, 2003		000	H02M000/00000
<u>WO 200033448 A2</u>	June 8, 2000	E	018	H02M000/00
<u>AU 200015031 A</u>	June 19, 2000		000	
<u>EP 1138109 A2</u>	October 4, 2001	E	000	H02M001/00
<u>KR 2001089521 A</u>	October 6, 2001		000	H02M001/00
<u>CN 1329771 A</u>	January 2, 2002		000	H02M001/12
<u>JP 2002532048 W</u>	September 24, 2002		025	H02M007/48

INT-CL (IPC): H02 M 0/00; H02 M 0/00000; H02 M 1/00; H02 M 1/12; H02 M 7/48

ABSTRACTED-PUB-NO: WO 200033448A

BASIC-ABSTRACT:

NOVELTY - The method involves using N/2 paralleled pulse width modulation (PWM) generators on each side of a load. The modulation of the N/2 PWM signals is produced by N/2 phase shifted versions of the carrier compared with a reference signal (11) on the opposite side of the load.

DETAILED DESCRIPTION - The phase shifts (  $\theta_p$  ) between the carriers are distributed uniformly over 180 degrees, such that (  $\theta_p$  ) equals  $2\pi/N$  or 4

pi /N. The method may involve using an input terminal for either analog or digital inputs, and including N half bridges each driven by a PWM signal. The carrier can be a triangular wave, a sawtooth wave, or a combination of triangular and sawtooth waves. INDEPENDENT CLAIMS are included for a modulation system.

USE - For DC-DC power converters, audio amplifiers, motors.

ADVANTAGE - Provides for reduction of high frequency content in the converter output, supplies a common mode free output, and reduces the current in the single switching device.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic block circuit diagram illustrating a general modulator structure.

Input 11

Inverted input 12

Carrier 13

Phase shifted carrier 14

Comparator 15

Summation 16

Loading 17

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 27. Document ID: DE 29923039 U1, EP 1096354 A2

L2: Entry 27 of 62

File: DWPI

Apr 27, 2000

DERWENT-ACC-NO: 2000-352160

DERWENT-WEEK: 200125

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TITLE: Thermostatic controller with a valve probe element for all types of heating systems where a warm medium is used for heating

INVENTOR: FAURSCHOU, J; HOULBERG, S ; NIELSEN, K

PRIORITY-DATA: 1999DK-0001551 (October 29, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 29923039 U1</u>	April 27, 2000		013	F16K031/64
<u>EP 1096354 A2</u>	May 2, 2001	E	000	G05D027/00

INT-CL (IPC): F16 K 31/64; G05 D 23/12; G05 D 27/00

ABSTRACTED-PUB-NO: DE 29923039U

BASIC-ABSTRACT:

NOVELTY - The thermostatic regulator has a probe element and a valve element. These elements are connected via a capillary tube such that the temperature around the probe element acts through the fluid pressure in the element on the valve in the valve element, and thus act on the supply of the medium to be regulated through the

probe element.

DETAILED DESCRIPTION - The capillary tube (3) opens into a piston chamber (4) in the housing (5) of the valve element. The valve spindle is set into this chamber such that spindle and the valve body move relative to a valve seat (9) in the valve due to pressure changes on the chamber.

USE - For regulatable heating system.

ADVANTAGE - The regulation range is wide and regulation is simple and reliable.

DESCRIPTION OF DRAWING(S) - The drawing shows a section of the regulator.

Capillary tube 3

Piston chamber 4

Housing 5

Valve seat 9

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMC	Draw Des
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☐ 28. Document ID: DE 19750746 A1

L2: Entry 28 of 62

File: DWPI

May 20, 1999

DERWENT-ACC-NO: 1999-303828

DERWENT-WEEK: 199929

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TITLE: Building material, especially concrete or mortar, contains magnetically or electrically aligned parallel fibers

INVENTOR: EMAMI, A; NIELSEN, K

PRIORITY-DATA: 1997DE-1050746 (November 11, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 19750746 A1</u>	May 20, 1999		005	C04B032/02

INT-CL (IPC): B28 B 23/02; C04 B 14/38; C04 B 16/06; C04 B 20/00; C04 B 32/02; E04 C 5/02

ABSTRACTED-PUB-NO: DE 19750746A

BASIC-ABSTRACT:

NOVELTY - The building material contains magnetically or electrically aligned parallel fibers.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for production of the above building material, in which the fibers are aligned by the action of magnetic or electric fields. Preferred Feature: Alignment is improved by mechanical vibration, switching on and off of the field with a frequency dependent on the matrix material and fibers or treatment of the matrix material with ultrasound, chemical diluent addition or heat treatment.

USE - Especially as a fiber-reinforced hydraulic binder such as concrete or mortar.



ADVANTAGE - Alignment of the fibers provides increased tensile strength and permits more fibers to be added.

DESCRIPTION OF DRAWING(S) - The drawing shows the use of a parallel electric field for aligning non-magnetic fibers, e.g. plastic fibers, in a matrix material within a mold.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. Des.
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☐ 29. Document ID: DE 59806421 G, EP 903544 A2, DE 19741100 A1, DE 19741100 C2, EP 903544 B1

L2: Entry 29 of 62

File: DWPI

Jan 9, 2003

DERWENT-ACC-NO: 1999-182985

DERWENT-WEEK: 200305

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TITLE: Valve cap with several limbs attached to support

INVENTOR: HANSEN, M I; NIELSEN, K ; RASMUSSEN, B K ; SOENDERGAARD, S S ;  
SOENDERGAARD, S

PRIORITY-DATA: 1997DE-1041100 (September 18, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 59806421 G	January 9, 2003		000	F24D019/10
<u>EP 903544 A2</u>	March 24, 1999	G	005	F24D019/10
DE 19741100 A1	April 8, 1999		000	F16K031/64
DE 19741100 C2	June 8, 2000		000	F16K031/64
<u>EP 903544 B1</u>	November 27, 2002	G	000	F24D019/10

INT-CL (IPC): F16 K 27/00; F16 K 31/64; F24 D 19/10

ABSTRACTED-PUB-NO: EP 903544A

BASIC-ABSTRACT:

NOVELTY - Limbs (3) surround space (5) for valve housing (2) and have a thread (12) on their outer surface. Nut (14) can be screwed on to the thread and can be held in the axial direction on the side of the thread remote from the end face (6) by a retaining device (16). Preferably the device is located axially so that the nut is positioned axially completely outside the thread.

USE - E.g. radiator valve.

ADVANTAGE - Fitting of the valve cap is simplified.

DESCRIPTION OF DRAWING(S) - The drawing shows a side view and partial cross-section of a valve.

Valve housing 2

Limbs 3

Space 5

End face 6

Nut 14

Retaining device 16

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des.
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☐ 30. Document ID: WO 9852861 A1, JP 2001526802 W, DK 9700589 A, AU 9874253 A, DK 173298 B, EP 1044158 A1

L2: Entry 30 of 62

File: DWPI

Nov 26, 1998

DERWENT-ACC-NO: 1999-024497

DERWENT-WEEK: 200203

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TITLE: Container opening and emptying device - rotates container almost one turn about vertical axis so that knife cuts flap in membrane that seals spout, allowing contents to empty under gravity

INVENTOR: JOSEPHSEN, B; NIELSEN, K

PRIORITY-DATA: 1997DK-0000589 (May 23, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9852861 A1</u>	November 26, 1998	E	023	B67B007/48
<u>JP 2001526802 W</u>	December 18, 2001		019	G03D013/00
<u>DK 9700589 A</u>	November 24, 1998		000	B67B007/60
<u>AU 9874253 A</u>	December 11, 1998		000	
<u>DK 173298 B</u>	June 19, 2000		000	B67B007/60
<u>EP 1044158 A1</u>	October 18, 2000	E	000	B67B007/48

INT-CL (IPC): B67 B 7/48; B67 B 7/60; B67 B 7/68; G03 D 13/00; G03 G 15/08; G03 G 21/00

ABSTRACTED-PUB-NO: WO 9852861A

BASIC-ABSTRACT:

The device (1) opens and empties a container (17) which has a spout (19) sealed with a membrane. It includes a socket (3) defined by a rim (2) and adapted for receiving the spout and for supporting the container. The rim is rotated by means of a worm gear (5) meshing with a pinion (8) on a drive shaft driven by a motor.

During the introduction of the spout into the device a knife (11) pierces the sealing membrane. The motor is then operated to turn the rim about a vertical axis (26) over the greater part of one revolution and the knife cuts a flap out of the membrane.

The flap, remaining attached by a small part, bends down under its own weight and that of the container contents, allowing the contents to fall into a chute (13).

USE - For dispensers of powdered photographic chemicals, hot food, etc.

ADVANTAGE - Avoids the need for direct human contact with container contents.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des.
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☐ 31. Document ID: WO 9852832 A1, JP 2001526613 W, DK 9700590 A, AU 9874254 A, DK 173060 B, EP 1036011 A1, US 6318597 B1

L2: Entry 31 of 62

File: DWPI

Nov 26, 1998

DERWENT-ACC-NO: 1999-024474

DERWENT-WEEK: 200203

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TITLE: Container for bulk matter - has mouthpiece defining lumen matched to pouch in order that seal membrane may be pierced to free opening, by which any matter held by container will be permitted to leave pouch by flowing through opening, without meeting any restrictions

INVENTOR: JOSEPHSEN, B; NIELSEN, K

PRIORITY-DATA: 1997DK-0000590 (May 23, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9852832 A1</u>	November 26, 1998	E	017	B65D033/16
<u>JP 2001526613 W</u>	December 18, 2001		014	B65D033/36
<u>DK 9700590 A</u>	November 24, 1998		000	B65D033/36
<u>AU 9874254 A</u>	December 11, 1998		000	B65D033/16
<u>DK 173060 B</u>	December 13, 1999		000	B65D033/16
<u>EP 1036011 A1</u>	September 20, 2000	E	000	B65D033/16
<u>US 6318597 B1</u>	November 20, 2001		000	B67D005/00

INT-CL (IPC): B65 B 9/10; B65 D 30/10; B65 D 33/16; B65 D 33/17; B65 D 33/36; B65 D 83/06; B67 D 5/00

ABSTRACTED-PUB-NO: US 6318597B

BASIC-ABSTRACT:

The container 2 comprises a rigid hollow mouthpiece 5. The mouthpiece has externally accessible support surfaces by which the container may be engaged and secured. A pouch 4 is in sealing connection with the mouthpiece. A member with a pierceable seal membrane 6 is adapted for sealing off the mouthpiece. The pouch comprises a flexible material. The mouthpiece defines a lumen 7 matched to the pouch in order that the seal membrane may be pierced to free an opening, by which any matter held by the container will be permitted to leave the pouch by flowing through the opening, without meeting any restrictions.

The pouch is provided by a section of a tube with constant circumference, joined at one end with the mouthpiece, and by the mouthpiece lumen exhibiting a circumference equal to that of the tube. The tube is sealed in the end opposite to the mouthpiece by a transverse weld.

USE - Particularly relevant in the field of packaging and handling of powdered chemicals.

ADVANTAGE - Provides a sealed enclosure in order to prevent degrading interaction with ambient air.

ABSTRACTED-PUB-NO:

WO 9852832A EQUIVALENT-ABSTRACTS:

The container 2 comprises a rigid hollow mouthpiece 5. The mouthpiece has externally accessible support surfaces by which the container may be engaged and secured. A pouch 4 is in sealing connection with the mouthpiece. A member with a pierceable seal membrane 6 is adapted for sealing off the mouthpiece. The pouch comprises a flexible material. The mouthpiece defines a lumen 7 matched to the pouch in order that the seal membrane may be pierced to free an opening, by which any matter held by the container will be permitted to leave the pouch by flowing through the opening, without meeting any restrictions.

The pouch is provided by a section of a tube with constant circumference, joined at one end with the mouthpiece, and by the mouthpiece lumen exhibiting a circumference equal to that of the tube. The tube is sealed in the end opposite to the mouthpiece by a transverse weld.

USE - Particularly relevant in the field of packaging and handling of powdered chemicals.

ADVANTAGE - Provides a sealed enclosure in order to prevent degrading interaction with ambient air.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 32. Document ID: EP 1042865 B1, WO 9844626 A2, AU 9864950 A, CN 1251697 A, EP 1042865 A2, AU 730339 B, MX 9909025 A1, KR 2001005877 A, JP 2001517393 W, JP 3346581 B2, MX 208449 B, CA 2285355 C, US 6768779 B1, KR 426422 B

L2: Entry 32 of 62

File: DWPI

Oct 13, 2004

DERWENT-ACC-NO: 1998-543059

DERWENT-WEEK: 200467

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TITLE: Pulse reference control method e.g. for DC=DC or DC=AC power conversion system - correcting any source of nonlinearity and noise introduced on power amplification of pulse demodulate signal with correction unit applied in between pulse modulator and switching power amplification stage

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1997DK-0000375 (April 2, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 1042865 B1</u>	October 13, 2004	E	000	H03F003/217
<u>WO 9844626 A2</u>	October 8, 1998	E	025	H03F003/217
<u>AU 9864950 A</u>	October 22, 1998		000	
<u>CN 1251697 A</u>	April 26, 2000		000	H03F003/217
<u>EP 1042865 A2</u>	October 11, 2000	E	000	H03F003/217
<u>AU 730339 B</u>	March 1, 2001		000	H03F003/217
<u>MX 9909025 A1</u>	May 1, 2000		000	H03F003/217
<u>KR 2001005877 A</u>	January 15, 2001		000	H03F003/217
<u>JP 2001517393 W</u>	October 2, 2001		027	H03F003/217
<u>JP 3346581 B2</u>	November 18, 2002		014	H03F003/217
<u>MX 208449 B</u>	June 18, 2002		000	H03F001/32
<u>CA 2285355 C</u>	June 8, 2004	E	000	H03F003/217
<u>US 6768779 B1</u>	July 27, 2004		000	H04K001/02

INT-CL (IPC): H03 F 1/32; H03 F 3/217; H03 F 3/38; H03 K 7/08; H03 M 1/66; H04 K 1/02

ABSTRACTED-PUB-NO: WO 9844626A

BASIC-ABSTRACT:

The method involves correcting any source of non-linearity and noise introduced in a power amplification of a pulse modulated signal, and introduces a correction unit in-between a pulse modulator and a switching power amplification stage. The correction unit introduces continuous delays on the pulse edges, controlled to have a compensating effect. The pulse edge delay correction is performed on either the leading edge, trailing edge or both edges of the incoming pulse modulated signal.

The correction is carried out by an effective pulse width change in every switching cycle, controlled as a linear control function of a error signal, to the correction unit, so that a general linear relation is established.

ADVANTAGE - Enables improved power amplification of pulse modulated signal, where all error sources related to power stage and demodulated filter are eliminated.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 33. Document ID: WO 9841243 A1, EP 973555 A1, AU 9866112 A

L2: Entry 33 of 62

File: DWPI

Sep 24, 1998

DERWENT-ACC-NO: 1998-520965

DERWENT-WEEK: 200010

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TITLE: Thermally reducing contamination with pathogenic organisms in animal environments - by partially inactivating organisms associated with a material surface in an environment by applying thermal energy initially contained in pressurised water vapour to the surface

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1997DK-0000295 (March 17, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9841243 A1</u>	September 24, 1998	E	017	A61L002/00
<u>EP 973555 A1</u>	January 26, 2000	E	000	A61L002/00
<u>AU 9866112 A</u>	October 12, 1998		000	A61L002/00

INT-CL (IPC): A61 L 2/00

ABSTRACTED-PUB-NO: WO 9841243A

BASIC-ABSTRACT:

Method of reducing contamination with pathogenic organisms in an animal environment, comprises at least partially inactivating the organisms associated with a material surface in the environment by applying onto the surface thermal energy initially contained in water vapour at pressure exceeding 1 bar, in an amount sufficient to inactivate the organisms.

Preferably thermal energy is applied by releasing pressurised water vapour onto the environmental material surface where thermal energy is derived from transition of the state of water vapour from gaseous to liquid state at a temperature in the range of 90 to 110 deg. C. The energy applied to the environmental material surface is at least 10 joules/cm2/sec., and energy is applied to the environmental material surface by releasing the water vapour to the surface at a distance from the surface which is at the most 10cm, for a period of time which is in the range of 0.01 to 60 sec/cm2. The material surface is selected from roof construction surface, ceiling, floor, wall surface and surface which is not immediately accessible. The building material is provided with a surface covering including a covering comprising an organic substance. The method results in killing of at least 90% of pathogenic organisms initially present on the material surface.

USE - Reduction or elimination of pathogenic organisms in the environment of animals by thermally inactivating organisms present in environment of the animals, such as on building surfaces including hidden or inaccessible surfaces.

ADVANTAGE - The invention reduces the risk of transmitting diseases from animals to other animals or to humans, is effective, non-damaging to materials, non-toxic and is cost effective.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	Draw	Des
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☐ 34. Document ID: ES 2212082 T3, WO 9819391 A2, AU 9747728 A, EP 935846 A2, CN 1235711 A, JP 2001503575 W, KR 2000052932 A, MX 9904073 A1, AU 734813 B, US 6297692 B1, JP 3346579 B2, CA 2271041 C, EP 935846 B1, EP 1376858 A1, KR 394846 B, DE 69726592 E

L2: Entry 34 of 62

File: DWPI

Jul 16, 2004

DERWENT-ACC-NO: 1998-348092

DERWENT-WEEK: 200447

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TITLE: Pulse modulation power amplifier for audio frequency signal - uses negative feedback introduced from switching power stage output to one or several loops, feeding into one or more pre-amplifier stages preceding modulator, providing single or dual feedback multiple variable enhanced cascade control

INVENTOR: KARSTEN, N; NIELSEN, K

PRIORITY-DATA: 1996DK-0001214 (October 31, 1996)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>ES 2212082 T3</u>	July 16, 2004		000	H03F003/217
<u>WO 9819391 A2</u>	May 7, 1998	E	039	H03F003/217
<u>AU 9747728 A</u>	May 22, 1998		000	H03F003/217
<u>EP 935846 A2</u>	August 18, 1999	E	000	H03F003/217
<u>CN 1235711 A</u>	November 17, 1999		000	H03F003/217
<u>JP 2001503575 W</u>	March 13, 2001		039	H03F003/217
<u>KR 2000052932 A</u>	August 25, 2000		000	H03F003/217
<u>MX 9904073 A1</u>	May 1, 2000		000	H03F003/217
<u>AU 734813 B</u>	June 21, 2001		000	H03F003/217
<u>US 6297692 B1</u>	October 2, 2001		000	H03F003/38
<u>JP 3346579 B2</u>	November 18, 2002		021	H03F003/217

CA 2271041 C	March 18, 2003	E	000	H03F003/217
EP 935846 B1	December 3, 2003	E	000	H03F003/217
EP 1376858 A1	January 2, 2004	E	000	H03F003/217
KR 394846 B	August 19, 2003		000	H03F003/217
DE 69726592 E	January 15, 2004		000	H03F003/217

E INT-CL (IPC): H03 F 1/34; H03 F 3/217; H03 F 3/38

ABSTRACTED-PUB-NO: US 6297692B

BASIC-ABSTRACT:

The amplifier includes a pulse modulator and a power amplifier stage whose output is low pass filtered in a demodulation filter for obtaining an analogue output. Negative feedback is introduced from the power amplifier stage output to one or several loops feeding into one or several pre-amplifier stages preceding the modulator. A further feedback loop is established from the output of the demodulation filter and to one or several pre-amplifier stages.

The feedback configuration is preferably a multi-loop configuration, with at least one of the loops being constituted of a signal from the switched amplifier stage injected into the chain of preamplifier stages, and at least one other loop being a global feedback from the filtered output to the input of the amplifier. The feedback loop from the switching power stage output comprises a filter with a phase characteristic such that a pole in the demodulation filter is compensated.

ADVANTAGE - Provides high power outputs, and distortion less than 0.01%, with noise less than 100 micro V RMS, efficiency of 90-95% and low idle losses. Low complexity by avoiding advanced, complex and potentially unreliable circuitry. Eliminates requirement for tuning in production, and need for stabilised supply.

ABSTRACTED-PUB-NO:

WO 9819391A EQUIVALENT-ABSTRACTS:

The amplifier includes a pulse modulator and a power amplifier stage whose output is low pass filtered in a demodulation filter for obtaining an analogue output. Negative feedback is introduced from the power amplifier stage output to one or several loops feeding into one or several pre-amplifier stages preceding the modulator. A further feedback loop is established from the output of the demodulation filter and to one or several pre-amplifier stages.

The feedback configuration is preferably a multi-loop configuration, with at least one of the loops being constituted of a signal from the switched amplifier stage injected into the chain of preamplifier stages, and at least one other loop being a global feedback from the filtered output to the input of the amplifier. The feedback loop from the switching power stage output comprises a filter with a phase characteristic such that a pole in the demodulation filter is compensated.

ADVANTAGE - Provides high power outputs, and distortion less than 0.01%, with noise less than 100 micro V RMS, efficiency of 90-95% and low idle losses. Low complexity by avoiding advanced, complex and potentially unreliable circuitry. Eliminates requirement for tuning in production, and need for stabilised supply.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw Des
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☐ 35. Document ID: DK 9600639 A, DK 172056 B

L2: Entry 35 of 62

File: DWPI

Aug 1, 1997

DERWENT-ACC-NO: 1997-459494

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.3&ref=2&dbname=PGPB,USPT,US...> 11/19/04

DERWENT-WEEK: 199747  
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TITLE: Combination tool for preparing sowing bed and sowing - is towed by tractor and incorporates harrow, sowing machine, drum, etc. fitted in sequence in common tool frame NoAbstract

INVENTOR: KAASTRUP, S; KNUDSEN, M ; NIELSEN, K

PRIORITY-DATA: 1996DK-0000041 (January 31, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DK 9600639 A</u>	August 1, 1997		000	A01B049/02
<u>DK 172056 B</u>	October 6, 1997		000	A01B049/02

INT-CL (IPC): A01 B 49/02; A01 B 63/114

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	Index	Draw. Des.
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☐ 36. Document ID: WO 9723617 A1, US 6242574 B1, AU 9713772 A, EP 870031 A1, CN 1205739 A, AU 710346 B, JP 2000502258 W

L2: Entry 36 of 62

File: DWPI

Jul 3, 1997

DERWENT-ACC-NO: 1997-351054  
DERWENT-WEEK: 200133  
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TITLE: New antimicrobial proteins from sugar beet - useful in plant protection, especially against fungi

INVENTOR: BRUNSTEDT, J; KROLL KRISTENSEN, A ; NIELSEN, K K ; NIELSEN, K

PRIORITY-DATA: 1995GB-0026238 (December 21, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9723617 A1</u>	July 3, 1997	E	046	C12N015/29
<u>US 6242574 B1</u>	June 5, 2001		000	A01H001/00
<u>AU 9713772 A</u>	July 17, 1997		000	C12N015/29
<u>EP 870031 A1</u>	October 14, 1998	E	000	C12N015/29
<u>CN 1205739 A</u>	January 20, 1999		000	C12N015/29
<u>AU 710346 B</u>	September 16, 1999		000	C12N015/29
<u>JP 2000502258 W</u>	February 29, 2000		055	C12N015/09

INT-CL (IPC): A01 H 1/00; A01 H 5/00; A01 N 65/00; C07 H 21/04; C07 K 14/415; C12 N 5/14; C12 N 15/09; C12 N 15/29; C12 N 15/82; C12 P 21/02

ABSTRACTED-PUB-NO: US 6242574B  
BASIC-ABSTRACT:

Antimicrobial proteins (A) including the sequence Q/C-A2-P/I-N/T/L-A5- A6-C-C-A/N-G/K- A11-A12-A13-A14-A15 where all A are amino acids, but A2 and A14 are not C and A4 is L when A1 is C, and proteins with at least 95% similarity to this sequence, are



new. Also claimed are: (1) recombinant DNA (I) encoding (A), and sequences complementary to it, or able to hybridise with it under stringent conditions; (2) vectors containing (I) linked to a promoter and terminator functional in plants; (3) a biological system, specifically a plant, its seeds or progeny, containing (I) or the vector of (2); and (4) proteins (Aa) expressed by (I).

USE - (A) are used to control bacteria, viruses and especially fungi, particularly when expressed from (I), which is inherited, in plants, specifically sugar beet or maize. Microorganisms transformed with (II) can also be used in plant protection.  
ABSTRACTED-PUB-NO:

WO 9723617A EQUIVALENT-ABSTRACTS:

Antimicrobial proteins (A) including the sequence Q/C-A2-P/I-N/T/L-A5- A6-C-C-A/N-G/K- A11-A12-A13-A14-A15 where all A are amino acids, but A2 and A14 are not C and A4 is L when A1 is C, and proteins with at least 95% similarity to this sequence, are new. Also claimed are: (1) recombinant DNA (I) encoding (A), and sequences complementary to it, or able to hybridise with it under stringent conditions; (2) vectors containing (I) linked to a promoter and terminator functional in plants; (3) a biological system, specifically a plant, its seeds or progeny, containing (I) or the vector of (2); and (4) proteins (Aa) expressed by (I).

USE - (A) are used to control bacteria, viruses and especially fungi, particularly when expressed from (I), which is inherited, in plants, specifically sugar beet or maize. Microorganisms transformed with (II) can also be used in plant protection.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des.
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☐ 37. Document ID: EP 715809 A2, CA 2242399 C, EP 715809 A3, WO 9728685 A1, AU 9715912 A, EP 848589 A1, NO 9803643 A, EP 848589 B1, DE 69700451 E, ES 2137776 T3, NO 309251 B1, US 6187263 B1

L2: Entry 37 of 62

File: DWPI

Jun 12, 1996

DERWENT-ACC-NO: 1996-269723

DERWENT-WEEK: 200131

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TITLE: Method of reducing fungal contamination on buildings, to improve air quality - uses pressurised water vapour, at temp of 90 - 110 degrees celsius, which converts to its liquid state to suppress fungal mycelia and spores without causing damage to surface of the materials being treated

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1996EP-0610005 (February 8, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 715809 A2</u>	June 12, 1996	E	006	A01M019/00
<u>CA 2242399 C</u>	May 1, 2001	E	000	A61L002/16
<u>EP 715809 A3</u>	August 21, 1996		000	A01M019/00
<u>WO 9728685 A1</u>	August 14, 1997	E	026	A01M019/00
<u>AU 9715912 A</u>	August 28, 1997		000	A01M019/00
<u>EP 848589 A1</u>	June 24, 1998	E	000	A01M019/00
<u>NO 9803643 A</u>	October 7, 1998		000	A01M019/00
<u>EP 848589 B1</u>	August 25, 1999	E	000	A01M019/00

DE 69700451 E	September 30, 1999	000	A01M019/00
ES 2137776 T3	December 16, 1999	000	A01M019/00
NO 309251 B1	January 8, 2001	000	A01M019/00
US 6187263 B1	February 13, 2001	000	A61L002/08

INT-CL (IPC): A01 M 1/24; A01 M 19/00; A01 M 21/04; A61 L 2/08; A61 L 2/16; E04 B 1/64; E04 B 1/70; E04 B 1/72

ABSTRACTED-PUB-NO: EP 715809A  
BASIC-ABSTRACT:

The method used to improve the air quality in buildings where occupants have symptoms ascribed to fungal contamination comprises seeks to at least partially inactivate fungal mycelia and spores associated with the materials used for the building surface by the application of thermal energy in the form of pressurised water vapour.

The vapour thermal energy is derived from the transition of the water vapour, at a pressure exceeding 1 bar and in a sufficient amount, from its gaseous state to the liquid state at a temperature in the range 90 to 110 degrees centigrade without causing any damage to the surface of the building material.

USE/ADVANTAGES - Treatment of building material surfaces without damage to the surface of the building material, improves air quality and health of occupants, overcomes sick and damp building syndrome.

ABSTRACTED-PUB-NO:

EP 848589B EQUIVALENT-ABSTRACTS:

The method used to improve the air quality in buildings where occupants have symptoms ascribed to fungal contamination comprises seeks to at least partially inactivate fungal mycelia and spores associated with the materials used for the building surface by the application of thermal energy in the form of pressurised water vapour.

The vapour thermal energy is derived from the transition of the water vapour, at a pressure exceeding 1 bar and in a sufficient amount, from its gaseous state to the liquid state at a temperature in the range 90 to 110 degrees centigrade without causing any damage to the surface of the building material.

USE/ADVANTAGES - Treatment of building material surfaces without damage to the surface of the building material, improves air quality and health of occupants, overcomes sick and damp building syndrome.

US 6187263B

The method used to improve the air quality in buildings where occupants have symptoms ascribed to fungal contamination comprises seeks to at least partially inactivate fungal mycelia and spores associated with the materials used for the building surface by the application of thermal energy in the form of pressurised water vapour.

The vapour thermal energy is derived from the transition of the water vapour, at a pressure exceeding 1 bar and in a sufficient amount, from its gaseous state to the liquid state at a temperature in the range 90 to 110 degrees centigrade without causing any damage to the surface of the building material.

USE/ADVANTAGES - Treatment of building material surfaces without damage to the surface of the building material, improves air quality and health of occupants, overcomes sick and damp building syndrome.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des.
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□ 38. Document ID: CN 1164217 A, WO 9612660 A1, AU 9536048 A, EP 785896 A1, JP 10509676 W, US 5938034 A, EP 785896 B1, DE 69522698 E

L2: Entry 38 of 62

File: DWPI

Nov 5, 1997

DERWENT-ACC-NO: 1996-230495

DERWENT-WEEK: 200320

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TITLE: Package and method of packaging at least two mutually reactive photographic chemicals - has air-proof outer membrane which defines enclosed chamber and at least one flexible partition wall that divides chamber into two compartments

INVENTOR: JOSEPHSEN, B; NIELSEN, K

PRIORITY-DATA: 1994DK-0001211 (October 19, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>CN 1164217 A</u>	November 5, 1997		000	B65D081/32
<u>WO 9612660 A1</u>	May 2, 1996	E	018	B65D081/32
<u>AU 9536048 A</u>	May 15, 1996		000	B65D081/32
<u>EP 785896 A1</u>	July 30, 1997	E	000	B65D081/32
<u>JP 10509676 W</u>	September 22, 1998		022	B65D081/32
<u>US 5938034 A</u>	August 17, 1999		000	B65D083/06
<u>EP 785896 B1</u>	September 12, 2001	E	000	B65D081/32
<u>DE 69522698 E</u>	October 18, 2001		000	B65D081/32

INT-CL (IPC): B65 D 30/22; B65 D 81/32; B65 D 83/06

ABSTRACTED-PUB-NO: EP 785896B

BASIC-ABSTRACT:

The package comprises a flexible, substantially air-proof outer membrane which defines an enclosed chamber and at least one flexible partition wall that divides the chamber into two compartments. The package also comprises a storage portion and a neck portion, said partition wall extending across both portions. Those portions of the compartments which are within the storage portion contain the full measured amounts of chemicals. The neck portion is so designed that a single cut opens both compartments to the surroundings.

The openings are conveyed below a liquid surface to allow substantially simultaneous subsequent discharge of the amounts into the liquid while substantially avoiding contact between the chemicals and the ambient air and without the chemicals contacting each other prior to their discharge into the liquid.

USE/ADVANTAGE - For measured amounts of different photographic chemicals which are to be stored apart and which are to be discharged simultaneously with a view to stirring into liquid. Provides package that allows transportation and storage of photographic chemicals which takes minimum requirements of space. Further provides package which is conveniently and reliably opened by single cutting operation wherein contents may be poured into liquid without danger of dust being swirled in air.

ABSTRACTED-PUB-NO:

US 5938034A EQUIVALENT-ABSTRACTS:

The package comprises a flexible, substantially air-proof outer membrane which defines an enclosed chamber and at least one flexible partition wall that divides the chamber into two compartments. The package also comprises a storage portion and a

neck portion, said partition wall extending across both portions. Those portions of the compartments which are within the storage portion contain the full measured amounts of chemicals. The neck portion is so designed that a single cut opens both compartments to the surroundings.

The openings are conveyed below a liquid surface to allow substantially simultaneous subsequent discharge of the amounts into the liquid while substantially avoiding contact between the chemicals and the ambient air and without the chemicals contacting each other prior to their discharge into the liquid.

USE/ADVANTAGE - For measured amounts of different photographic chemicals which are to be stored apart and which are to be discharged simultaneously with a view to stirring into liquid. Provides package that allows transportation and storage of photographic chemicals which takes minimum requirements of space. Further provides package which is conveniently and reliably opened by single cutting operation wherein contents may be poured into liquid without danger of dust being swirled in air.

The package comprises a flexible, substantially air-proof outer membrane which defines an enclosed chamber and at least one flexible partition wall that divides the chamber into two compartments. The package also comprises a storage portion and a neck portion, said partition wall extending across both portions. Those portions of the compartments which are within the storage portion contain the full measured amounts of chemicals. The neck portion is so designed that a single cut opens both compartments to the surroundings.

The openings are conveyed below a liquid surface to allow substantially simultaneous subsequent discharge of the amounts into the liquid while substantially avoiding contact between the chemicals and the ambient air and without the chemicals contacting each other prior to their discharge into the liquid.

USE/ADVANTAGE - For measured amounts of different photographic chemicals which are to be stored apart and which are to be discharged simultaneously with a view to stirring into liquid. Provides package that allows transportation and storage of photographic chemicals which takes minimum requirements of space. Further provides package which is conveniently and reliably opened by single cutting operation wherein contents may be poured into liquid without danger of dust being swirled in air.

WO 9612660A

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw. Des.
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☐ 39. Document ID: HU 71203 T

L2: Entry 39 of 62

File: DWPI

Nov 28, 1995

DERWENT-ACC-NO: 1997-366679

DERWENT-WEEK: 199734

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TITLE: Microbiological preparation of recombinant tumour necrosis factor - uses recombinant bacteriophages from human gene collection

INVENTOR: DUDA, E; MAI, A ; NIELSEN, K ; TOTH, M

PRIORITY-DATA: 1988HU-0005578 (October 25, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>HU 71203 T</u>	November 28, 1995		001	C12N015/28

INT-CL (IPC): C12 N 15/28

ABSTRACTED-PUB-NO: HU 71203T  
BASIC-ABSTRACT:

Microbiological preparation of recombinant tumour necrosis factor comprises selecting recombinant bacteriophages from the human gene collection by oligonucleotide tests. A bit corresponding to the fourth exon of a TNT gene (containing the 5' terminal) is removed by restrictive enzymes (preferably MSP1 and ECoRI) and inserted in a bacterial plasmid. The DNA section that codes the N-terminal of the protein is replaced by a synthetic oligo-nucleotide of 102 basic length. The resulting pDR-TNF plasmid expresses TNF which can then be isolated and purified.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Drawings
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□ 40. Document ID: CN 1041960 C, DE 4344773 A1, WO 9518325 A1, AU 9513100 A, NO 9602706 A, FI 9602658 A, EP 737286 A1, CZ 9601853 A3, SK 9600855 A3, HU 75002 T, CN 1139475 A, EP 737286 B1, DE 69418624 E, RU 2120076 C1, FI 107404 B1, CZ 290154 B6

L2: Entry 40 of 62

File: DWPI

Feb 3, 1999

DERWENT-ACC-NO: 1995-232777  
DERWENT-WEEK: 200458  
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TITLE: Thermostat extension cap for radiator valve - has fixing device which is formed for direct mounting on at least two different types of radiator valve housing

INVENTOR: FREDRIKSEN, B; MARKVART, A ; MAROTI, S P ; NIELSEN, K ; MAROTI, S ; FREDRIKSEN, B

PRIORITY-DATA: 1993DE-4344773 (December 28, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1041960 C	February 3, 1999		000	F16K031/64
DE 4344773 A1	June 29, 1995		008	F24D019/10
WO 9518325 A1	July 6, 1995	E	018	F16K031/64
AU 9513100 A	July 17, 1995		000	F16K031/64
NO 9602706 A	June 26, 1996		000	F16K000/00
FI 9602658 A	June 27, 1996		000	F16K000/00
EP 737286 A1	October 16, 1996	E	008	F16K031/64
CZ 9601853 A3	February 12, 1997		000	F16K031/64
SK 9600855 A3	August 6, 1997		000	F16K031/64
HU 75002 T	March 28, 1997		000	F16K031/64
CN 1139475 A	January 1, 1997		000	F16K031/64
EP 737286 B1	May 19, 1999	E	000	F16K031/64
DE 69418624 E	June 24, 1999		000	F16K031/64
RU 2120076 C1	October 10, 1998		000	F16K031/64
FI 107404 B1	July 31, 2001		000	F16K031/64
CZ 290154 B6	June 12, 2002		000	F16K031/64

INT-CL (IPC): F16 K 0/00; F16 K 31/64; F24 D 19/10; G05 D 23/00; G05 D 23/12

ABSTRACTED-PUB-NO: DE 4344773A

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.3&ref=2&dbname=PGPB,USPT,US...> 11/19/04

BASIC-ABSTRACT:

The thermostat upper part (2) can be used for at least two types of valve housing with the use of an adapter (K). The thermostat upper part has a fixing device (15) for mounting on the valve housing and a valve rod (1) which is axially adjusted by a temperature dependent operating element to shift a ram loaded by a reset spring in the valve housing.

The fixing device is formed for direct mounting of the upper part on the at least two types of valve housing. The adapter is formed from two rod parts (12,13) which are mutually adjustable to change the effective length of the valve rod.

ADVANTAGE - Can be used with at least two different types of valve housing and avoids existing difficulties of using adapter.

ABSTRACTED-PUB-NO:

EP 737286B EQUIVALENT-ABSTRACTS:

The thermostat upper part (2) can be used for at least two types of valve housing with the use of an adapter (K). The thermostat upper part has a fixing device (15) for mounting on the valve housing and a valve rod (1) which is axially adjusted by a temperature dependent operating element to shift a ram loaded by a reset spring in the valve housing.

The fixing device is formed for direct mounting of the upper part on the at least two types of valve housing. The adapter is formed from two rod parts (12,13) which are mutually adjustable to change the effective length of the valve rod.

ADVANTAGE - Can be used with at least two different types of valve housing and avoids existing difficulties of using adapter.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 41. Document ID: DK 9301220 A

L2: Entry 41 of 62

File: DWPI

Apr 30, 1995

DERWENT-ACC-NO: 1995-216746

DERWENT-WEEK: 200324

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TITLE: UV radiation intensity direct measuring appts. - works both when sun is out and when it is overcast, using inner container of glass with fluorescent fluid drawn out of outer container

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1993DK-0001220 (October 29, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DK 9301220 A	April 30, 1995		001	G01J001/58

INT-CL (IPC): G01 J 1/58; G01 N 21/64

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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□ 42. Document ID: HU 223367 B1, WO 9511306 A1, AU 9480587 A, EP 724641 A1, HU 74395 T, CZ 9601122 A3, JP 09504427 W, AU 683952 B, RU 2158762 C2, US 6218508 B1, US 6300103 B1, EP 724641 B1, DE 69433407 E

L2: Entry 42 of 62

File: DWPI

Jun 28, 2004

DERWENT-ACC-NO: 1995-170226

DERWENT-WEEK: 200452

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TITLE: Antimicrobial protein and DNA encoding it - useful to apply or to transform plants to protect against plant pathogens

INVENTOR: KRAGH, K M; MIKKELSEN, J D ; NIELSEN, K K ; KRAGH, K ; MIKKELSEN, J ;  
NIELSEN, K

PRIORITY-DATA: 1993GB-0021714 (October 21, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>HU 223367 B1</u>	June 28, 2004		000	C12N015/82
<u>WO 9511306 A1</u>	April 27, 1995	E	032	C12N015/82
<u>AU 9480587 A</u>	May 8, 1995		000	C12N015/82
<u>EP 724641 A1</u>	August 7, 1996	E	000	C12N015/82
<u>HU 74395 T</u>	December 30, 1996		000	C12N015/82
<u>CZ 9601122 A3</u>	May 14, 1997		000	C12N015/82
<u>JP 09504427 W</u>	May 6, 1997		034	C12N015/09
<u>AU 683952 B</u>	November 27, 1997		000	C12N015/82
<u>RU 2158762 C2</u>	November 10, 2000		000	C12N015/82
<u>US 6218508 B1</u>	April 17, 2001		000	C07K005/00
<u>US 6300103 B1</u>	October 9, 2001		000	C07H021/04
<u>EP 724641 B1</u>	December 10, 2003	E	000	C12N015/82
<u>DE 69433407 E</u>	January 22, 2004		000	C12N015/82

INT-CL (IPC): A01 H 5/00; A01 N 65/00; C07 H 21/04; C07 K 1/14; C07 K 5/00; C07 K 14/00; C07 K 14/415; C12 N 1/21; C12 N 15/09; C12 N 15/82; C12 P 21/00; C12 P 21/02

ABSTRACTED-PUB-NO: US 6218508B

BASIC-ABSTRACT:

A novel antimicrobial protein comprises a peptide with the sequence: (AA1-3)-Cys-(AA5-9)-Cys-(AA10-14)-Cys-Cys-(AA17-21)-Cys-(AA23-28)-Cys-AA3-0. Also claimed are: (1) pure proteins as above in combination with at least one of a 46, 46 or 32 amino acid sequence (given in the specification); (2) recombinant DNA encoding one of the above proteins or having a 550 bp sequence (given in the specification); (3) a vector contg. the DNA of (2) which is expressible in plants; (4) plants transformed with the DNA of (2), whose progeny contain the DNA, and/or the seeds of the plant or progeny; and (5) protein derived from expression of the DNA of (2) and antimicrobial protein produced by expression of the recombinant DNA within plants or their progeny or seeds.

USE - The antimicrobial protein includes a protein (alone or in combination) which is toxic or growth inhibitory to any microorganism. It may be combined with other proteins with herbicide resistance or with plant growth promoting, antifungal, antibacterial, antiviral and/or antinematode properties. DNA encoding the protein can be used to transform plants, e.g. fruits, field crops and vegetables, pref. sugar beet and maize. Microorganisms in which the protein is not toxic may be transformed

with the vector contg. the genes encoding the protein. They may further contain other genes, e.g. encoding the WIN protein. These microorganisms can then be used to combat plant pathogens. They may be dried and sprayed onto infected plants or plants at risk of infection.

ABSTRACTED-PUB-NO:

US 6300103B EQUIVALENT-ABSTRACTS:

A novel antimicrobial protein comprises a peptide with the sequence: (AA1-3)-Cys-(AA5-9)-Cys-(AA10-14)-Cys-Cys-(AA17-21)-Cys-(AA23-28)-Cys-AA3- 0. Also claimed are: (1) pure proteins as above in combination with at least one of a 46, 46 or 32 amino acid sequence (given in the specification); (2) recombinant DNA encoding one of the above proteins or having a 550 bp sequence (given in the specification); (3) a vector contg. the DNA of (2) which is expressible in plants; (4) plants transformed with the DNA of (2), whose progeny contain the DNA, and/or the seeds of the plant or progeny; and (5) protein derived from expression of the DNA of (2) and antimicrobial protein produced by expression of the recombinant DNA within plants or their progeny or seeds.

USE - The antimicrobial protein includes a protein (alone or in combination) which is toxic or growth inhibitory to any microorganism. It may be combined with other proteins with herbicide resistance or with plant growth promoting, antifungal, antibacterial, antiviral and/or antinematode properties. DNA encoding the protein can be used to transform plants, e.g. fruits, field crops and vegetables, pref. sugar beet and maize. Microorganisms in which the protein is not toxic may be transformed with the vector contg. the genes encoding the protein. They may further contain other genes, e.g. encoding the WIN protein. These microorganisms can then be used to combat plant pathogens. They may be dried and sprayed onto infected plants or plants at risk of infection.

A novel antimicrobial protein comprises a peptide with the sequence: (AA1-3)-Cys-(AA5-9)-Cys-(AA10-14)-Cys-Cys-(AA17-21)-Cys-(AA23-28)-Cys-AA3- 0. Also claimed are: (1) pure proteins as above in combination with at least one of a 46, 46 or 32 amino acid sequence (given in the specification); (2) recombinant DNA encoding one of the above proteins or having a 550 bp sequence (given in the specification); (3) a vector contg. the DNA of (2) which is expressible in plants; (4) plants transformed with the DNA of (2), whose progeny contain the DNA, and/or the seeds of the plant or progeny; and (5) protein derived from expression of the DNA of (2) and antimicrobial protein produced by expression of the recombinant DNA within plants or their progeny or seeds.

USE - The antimicrobial protein includes a protein (alone or in combination) which is toxic or growth inhibitory to any microorganism. It may be combined with other proteins with herbicide resistance or with plant growth promoting, antifungal, antibacterial, antiviral and/or antinematode properties. DNA encoding the protein can be used to transform plants, e.g. fruits, field crops and vegetables, pref. sugar beet and maize. Microorganisms in which the protein is not toxic may be transformed with the vector contg. the genes encoding the protein. They may further contain other genes, e.g. encoding the WIN protein. These microorganisms can then be used to combat plant pathogens. They may be dried and sprayed onto infected plants or plants at risk of infection.

WO 9511306A

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 43. Document ID: WO 9308902 A1, CA 2121508 C, FI 9402058 A, EP 613397 A1, EP 613397 B1, US 5435980 A, DE 69203350 E, FI 104413 B1

L2: Entry 43 of 62

File: DWPI

May 13, 1993



DERWENT-ACC-NO: 1993-167449  
DERWENT-WEEK: 200234  
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TITLE: Enhancing mercury@ removal from coal combustion flue-gas - by adjusting chloride concn. in spray drying absorption system

INVENTOR: CHRISTIANSEN, O B; FELSVANG, K S ; NIELSEN, K K ; CHRISTIANSEN, O ; FELSVANG, K ; NIELSEN, K ; OVE, B C

PRIORITY-DATA: 1991US-0787433 (November 4, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9308902 A1</u>	May 13, 1993	E	027	B01D053/34
<u>CA 2121508 C</u>	April 16, 2002	E	000	B01D053/34
<u>FI 9402058 A</u>	May 4, 1994		000	B01D000/00
<u>EP 613397 A1</u>	September 7, 1994	E	000	B01D053/34
<u>EP 613397 B1</u>	July 5, 1995	E	012	B01D053/34
<u>US 5435980 A</u>	July 25, 1995		008	C01G013/04
<u>DE 69203350 E</u>	August 10, 1995		000	B01D053/34
<u>FI 104413 B1</u>	January 31, 2000		000	B01D053/34

INT-CL (IPC): B01 D 0/00; B01 D 53/34; B01 D 53/50; B01 D 53/64; C01 G 13/04

ABSTRACTED-PUB-NO: EP 613397B

BASIC-ABSTRACT:

Flue gases at 110-170 deg.C from low chloride coal combustion are fed to a drying chamber supplied with an aq. suspension of basic absorbent from an atomiser. H2O content of the absorbent droplets formed evaporates with formation of fine dry particulates. Droplets and particulates sorb oxides of sulphur and nitrogen, hydrogen halides plus Hg from the gas. The flue gas contg. entrained loaded absorbent is then fed to a particle collector for gas/solid sepn. and cleaned gas obtd. is discharged. Process is characterised by keeping chloride concn. in the drying chamber above a min. concn. to enhance Hg sequestration by the droplets/particulates of absorbent.

Adjustment of chloride concn. is pref. by addn. of NaCl and/or CaCl2 or Cl2 contg. material to the suspension or the coal. Alternatively HCl can be added to the flue gas. Activated carbon is also added to the flue gas upstream of the particle collector to further improve Hg removal. Chloride concn. in fluegas can be estimated from the chloride content in the coal or by measuring devices placed in the gas stream.

USE/ADVANTAGE - 90-99% of Hg in flue gas can be removed by increasing chloride concn. in drying chamber to 20-150 ppm. Hg removal is compatible with desulphurisation. Hg may be present as vapour, a cpd. or complex.

ABSTRACTED-PUB-NO:

US 5435980A EQUIVALENT-ABSTRACTS:

A method for removing noxious components including sulphur dioxide and mercury from a hot flue gas having a temperature of 110-170 deg.C and resulting from the combustion of coal having a low chloride content, in which process an aqueous suspension of a basic absorbent in a drying chamber of a drying-absorption zone comprising a drying chamber and a particle collector as well as a duct connecting them, is atomized to fine droplets into the hot flue gas, the water of said droplets evaporates leaving dry fine particles, and a part of noxious components of the gas including sulphur oxides, hydrogen halides and nitrogen oxides and mercury, is simultaneously sorbed by

the droplets and the fine particles, whereupon the flue gas with entrained dry fine particles is passed to the particle collector wherein contact between the particles and the flue gas causes a further sorption of noxious compounds, in which the amount of chloride supplied to the drying-absorption zone is increased to an extent sufficient to improve the Hg sequestering capability of the process.

Flue gas cleaning process is claimed for elemental Hg vapour contg. flue gas of temp. 110-170 deg.C resulting from combustion of coal having chloride control insufficient to convert elemental Hg vapour to HgCl<sub>2</sub>. Aq. suspension of basic absorbent is atomised to fine droplets in the gas. The water of the droplets is evaporated to form dry fine basic absorbent particles. Part of noxious components in gas including SO<sub>x</sub>, to H halides and NO<sub>x</sub> and Hg is simultaneously absorbed by the basic to particles.

The flue gas with entrained dry absorbed particles passed to the particle collector when contact between the particles and flue gas cause further sorption of noxious components. The amt. of chloride applied to drying-absorbing zone is increased to a quantity sufficient to convert elemental Hg to HgCl<sub>2</sub> to improve the sequestering of the droplets.

ADVANTAGE - Permanent high Hg removal is achieved.

WO 9308902A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Drawings	Draw. Des.
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☐ 44. Document ID: DK 9101530 A, DK 168695 B

L2: Entry 44 of 62

File: DWPI

Mar 1, 1993

DERWENT-ACC-NO: 1993-168797

DERWENT-WEEK: 199321

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TITLE: Transport device for extruded concrete elements - comprises two legs forming angle of form hooks NoAbstract

INVENTOR: KAAGAARD, J; NIELSEN, K; PEDERSEN, L

PRIORITY-DATA: 1991DK-0001530 (August 30, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DK 9101530 A</u>	March 1, 1993		000	B28B023/00
<u>DK 168695 B</u>	May 24, 1994		000	B28B023/00

INT-CL (IPC): B28B 23/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Drawings	Draw. Des.
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☐ 45. Document ID: WO 9215900 A1, AU 9214279 A, EP 575453 A1, JP 06509162 W

L2: Entry 45 of 62

File: DWPI

Sep 17, 1992

DERWENT-ACC-NO: 1992-331880

DERWENT-WEEK: 199240

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TITLE: Magnetic shield for electromagnetic buried object detector - uses ferromagnetic material shield over the whole detector and individual shields for each transducer-receiver

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1991DK-0000424 (March 11, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9215900 A1</u>	September 17, 1992	E	022	G01V003/12
<u>AU 9214279 A</u>	October 6, 1992		000	G01V003/12
<u>EP 575453 A1</u>	December 29, 1993	E	002	G01V003/12
<u>JP 06509162 W</u>	October 13, 1994		000	G01V003/12

INT-CL (IPC): G01V 3/12; G01V 3/15

ABSTRACTED-PUB-NO: WO 9215900A

BASIC-ABSTRACT:

The electromagnetic detector is mounted on a downward facing part (3) of a vehicle such as a tractor. The detector includes an electromagnetic shield (12) which has on its inside a number of transmitter-receiver units (14). The units are distributed around a circle within the annular collar (16) of the shield. The shield is made of a ferromagnetic material which easily deflects magnetic field lines.

Each transmitter-receiver unit has an individual cup-shaped electromagnetic shield (18) and is connected to a signal processing unit and display in the tractor or excavator.

USE/ADVANTAGE - For detecting buried, elongated electromagnetic detectable objects. Can be mounted on metal tractor body without metal coupling receiver and transmitter. Can be positioned to reduce risk of damage.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Summary	Drawings
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☐ 46. Document ID: US 5112756 A

L2: Entry 46 of 62

File: DWPI

May 12, 1992

DERWENT-ACC-NO: 1992-183007

DERWENT-WEEK: 199222

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TITLE: New transformed canine thymus cell line - continuously producing bovine Maedi-Visna-like viral antigens

INVENTOR: BOUILLANT, A M P; HARE, W C D ; NIELSEN, K ; RUCKERBAUER, G M ; SAMAGH, B S

PRIORITY-DATA: 1986CA-0510622 (June 2, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 5112756 A</u>	May 12, 1992		000	C12N007/00

INT-CL (IPC): C12N 5/10; C12N 7/02

ABSTRACTED-PUB-NO: US 5112756A

BASIC-ABSTRACT:

Transformed canine Cf2Th thymus cell line infected with borine Maedi-Visna-like virus (BMVLV) is claimed. The cells of the cell line have continuously reproduced themselves for at least 25 passages after initial infection with the virus, and continuously produce viral antigens.

Pref. the cell line Cf2Th (ATCC CRL 1430) carries the following designation Cf2ThX2/BMVLVY2, where X2 = the number of cell passages i.e. at least 25; Y2 = the number of virus passages i.e. at least 1.

USE/ADVANTAGE - The transformed cell line may be cultured to produce large quantities of viral antigens on a continuous basis. Such antigens are useful for diagnostics and research

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 47. Document ID: WO 9206294 A, AU 9187155 A, DK 166969 B, DK 9002389 A, US 5435134 A

L2: Entry 47 of 62

File: DWPI

Apr 16, 1992

DERWENT-ACC-NO: 1992-150959

DERWENT-WEEK: 199218

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TITLE: Wave activated power generation system - has pump located on sea bottom piston connected by flexible body to float body and suction chamber

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1990DK-0002389 (October 3, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9206294 A	April 16, 1992	E	018	
AU 9187155 A	April 28, 1992		000	F03B013/18
DK 166969 B	August 9, 1993		000	F03B013/18
DK 9002389 A	April 4, 1992		000	F03B013/18
US 5435134 A	July 25, 1995		010	F16D031/02

INT-CL (IPC): F03 B 13/18; F16 D 31/02

ABSTRACTED-PUB-NO: US 5435134A

BASIC-ABSTRACT:

The wave activated power generation system has a suction chamber (17) and it contains or is connected to a reservoir (65). This is a reservoir of a variable volume for a gas amt. sepd. from the surrounding area. A gas filled chamber is located above a water surface (66) in the suction chamber.

The outlet port (15) of the hydraulic motor is located lower than the lowest water level. The gas reservoir has an elastic container or bellows located in the suction chamber (17).

ADVANTAGE - The hydraulic motor is not activated until a suitable pressure drop is provided over the motor. Thus the motor is prevented from being subjected to flow at

a low pressure difference at which the efficiency of the motor is also low.  
ABSTRACTED-PUB-NO:

WO 9206294A EQUIVALENT-ABSTRACTS:

The wave-activated power generation apparatus comprises a float for floating on a surface of water above a seabed and for moving up and down with passage of waves along the water surface and a structure positioned on the seabed generally beneath the float. The structure comprises a housing which defines therein a single pump chamber and a suction chamber, the housing including a base that has an opening therein and is positioned on the seabed, and a pipe communicating the opening with the suction chamber. The suction chamber contains water and either gas above the water or connected to a reservoir containing gas. There is a pump cylinder mounted within the single pump chamber, and a piston movably mounted within the pump cylinder, the single pump chamber beneath the piston containing water.

A channel enables water from around the housing to flow into the suction chamber, the channel defining a lower end which is lower than the water level in the pump chamber. A turbine is positioned within the channel for rotation upon the passage of water through the channel. An electrical generator is connected to the turbine for the generation of electrical power upon the rotation of the turbine. There is a valve for communicating the suction chamber with the single pump chamber beneath the piston when the piston is moved upwardly by upward movement of the float and for communicating the pump chamber beneath the piston to the water around the housing when the piston moves downwardly with downward movement of the float.

ADVANTAGE - Higher energy absorption from the waves.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 48. Document ID: EP 476705 A, AU 653745 B, AU 9184649 A, CA 2051996 A, EP 476705 A3, JP 04260460 A, TW 210293 A, US 5171613 A

L2: Entry 48 of 62

File: DWPI

Mar 25, 1992

DERWENT-ACC-NO: 1992-098410

DERWENT-WEEK: 199213

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TITLE: Spraying appts. applying coating and supercritical fluid - uses computer control for coating material mixed with cooled carbon di:oxide passed to spray gun via heated conduit

INVENTOR: BOK, H F; GLANCY, C W ; HOY, K L ; LEE, C ; NIELSEN, K A ; NIELSEN, K

PRIORITY-DATA: 1990US-0586204 (September 21, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 476705 A</u>	March 25, 1992		036	
<u>AU 653745 B</u>	October 13, 1994		000	B05B012/10
<u>AU 9184649 A</u>	March 26, 1992		000	B05B012/10
<u>CA 2051996 A</u>	March 22, 1992		000	B05D001/02
<u>EP 476705 A3</u>	July 8, 1992		000	
<u>JP 04260460 A</u>	September 16, 1992		040	B05B001/24
<u>TW 210293 A</u>	August 1, 1993		000	B05C005/02
<u>US 5171613 A</u>	December 15, 1992		046	B05D001/02

INT-CL (IPC): B01F 5/00; B05B 1/24; B05B 5/16; B05B 7/04; B05B 7/16; B05B 7/24; B05B 7/26; B05B 9/03; B05B 12/10; B05C 5/02; B05D 1/02

ABSTRACTED-PUB-NO: EP 476705A

BASIC-ABSTRACT:

A pressure tank (6) and pump (8) provide coating material. Compressible fluid e.g. liq. carbon dioxide from a cylinder (9) is pumped by a cryogenic pump (11) through a pressure regulator (35). A gear pump (12) connected to a precision gear meter (17) determines the coating material flow rate and enables control via a computer (18).

Relief valves (16, 19) give over-pressure protection. A static mixer (28) feeds the single pass spray gun (32) via a heated conduit (31).

USE/ADVANTAGE - Esp. applying lacquer, enamel and varnish.

Computer control optimises coating mixture and prevents premature cooling.

ABSTRACTED-PUB-NO:

US 5171613A EQUIVALENT-ABSTRACTS:

A mixture of coating material and a supercritical fluid is sprayed in a feathered spray pattern from a gun while maintaining mixture temp. in the gun at a temp. such that a feathered pattern is maintained.

The mixture is pref. formed just before entering the gun, which is heated by fluid circulating within passages (60) in the gun. The fluid may be water, glycol, mineral oil, and/or silicone cpd., most pref. water. Alternatively, the gun nozzle may be heated. The mixture is pref. formed by a static mixer at the gun inlet and which has a number of mixing elements in the flow passage. The mixture or material may also be heated when being fed to the gun.

USE/ADVANTAGE - For paint, varnish, lubricant, adhesive, etc., prevents undesirable premature cooling which might impair the final coating.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FORM	Draw. Des.
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☐ 49. Document ID: DE 4023756 C, FR 2665222 A, GB 2247922 A, GB 2247922 B, IT 1251099 B

L2: Entry 49 of 62

File: DWPI

Dec 19, 1991

DERWENT-ACC-NO: 1991-370187

DERWENT-WEEK: 199151

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TITLE: Electric fluid pump assembly e.g. for refrigerator - has motor end bearing protected from contact with fluid by sealed housing assembly

INVENTOR: JENSEN, N D; LAURIDSEN, B D ; NIELSEN, K ; NIELSEN, K F

PRIORITY-DATA: 1990DE-4023756 (July 26, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 4023756 C</u>	December 19, 1991		000	
<u>FR 2665222 A</u>	January 31, 1992		000	
<u>GB 2247922 A</u>	March 18, 1992		012	

GB 2247922 B May 4, 1994  
IT 1251099 B May 4, 1995

002 F04D029/04  
000 F04D000/00

INT-CL (IPC): F04D 0/00; F04D 13/06; F04D 29/04; F04D 29/14; H02K 5/12

ABSTRACTED-PUB-NO: DE 4023756C  
BASIC-ABSTRACT:

An electric fluid pump assembly (1,2) employs a common drive shaft (9) which couples the rotor (6) and pump impeller (5). The pump (2) end bearing (10) is of plain bush type construction and is lubricated/cooled by the moving fluid. The motor (4) end bearing (11) is an enclosed roller bearing capable of supporting both radial and axial forces.

It is protected from contact with the fluid by a sealed housing assembly (13) which incorporates sealing rings (17) and is lubricated by a waterproof grease packing (23) injected via grease nipple (24).

USE/ADVANTAGE - For domestic central heating and water supply, cellar dewatering, refrigerators, gardens etc.. Is suitable for line production and assembly with attendant economies of manufacture. Can be mounted in any angular position and is capable of running for limited period if seal fails.

ABSTRACTED-PUB-NO:

GB 2247922B EQUIVALENT-ABSTRACTS:

A motor pump assembly including a canned motor having a chamber containing a rotor, and a pump impeller, the rotor and the pump impeller being mounted on a common shaft in a first friction bearing lubricated by a pumped medium between the motor and the pump and in a second bearing at the end remote from the pump, the second bearing being sealed off by means of a shield from the pumped medium which is present in the rotor chamber of the canned motor, wherein the shield consists of a component which is essentially a hollow cylinder internally carrying the second bearing and externally sealed off from the can and/ or casing of the motor, and of shaft sealing means which are provided in the component on the side facing the rotor chamber in front of the second bearing, and the hollow cylindrical component is radially supported in the interior of the can at the rotor end and has the remaining part of its body at least partly mounted and secured in the motor casing.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw Des
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☐ 50. Document ID: EP 460399 A, DE 59102700 G, EP 460399 A3, EP 460399 B1

L2: Entry 50 of 62

File: DWPI

Dec 11, 1991

DERWENT-ACC-NO: 1991-362930

DERWENT-WEEK: 199150

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TITLE: Central heating and hot water boiler - has two centrifugal hot water supply respectively

INVENTOR: JAKOBSEN, G M; JENSEN, N D ; NIELSEN, K

PRIORITY-DATA: 1990DE-4014409 (May 4, 1990)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

EP 460399 A	December 11, 1991	000	
DE 59102700 G	October 6, 1994	000	F24D003/08
EP 460399 A3	February 5, 1992	000	
EP 460399 B1	August 31, 1994	G 011	F24D003/08

INT-CL (IPC): F04D 9/00; F04D 15/00; F24D 3/08; F24D 19/10

ABSTRACTED-PUB-NO: EP 460399A

BASIC-ABSTRACT:

The gas fired central heating and hot water boiler has a gas heated primary heat exchanger (3) as part of both a first circuit (6) for heating, and a second one (8), including a secondary exchanger (9), providing the hot water. A motor-driven centrifugal pump (4) delivers from the primary exchanger to the circuits alternately.

The pump has a suction branch (14) connected to the primary exchanger outlet (5), and two discharge branches (15,16) connected to the respective circuit inlets. Delivery to the desired circuit is controlled by altering the direction of rotation and/or speed of the pump, in conjunction with an internal guide system preceding the discharge branches.

ADVANTAGE - Simple design and easy access for maintenance or repair.

ABSTRACTED-PUB-NO:

EP 460399B EQUIVALENT-ABSTRACTS:

Gas boiler for room heating and hot water preparation, with a gas-fired primary heat exchanger (3) which is integrated in a first heating circuit (6) for room heating as well as in a second heating circuit (8), wherein the second circuit comprises if occasion arises a secondary heat exchanger (9) in the gas boiler (1), with a motor-driven, variable-output centrifugal pump (4) of which the suction connection (14) is provided in the flow (5) of the primary heat exchanger (3), as well as with a pressure connection device supplied by the pump for circulating the pumped stream in the circuits (6, 8), wherein in front of the pressure connection device is provided a water conducting device (30, 31, 32) for alternately delivering to the heating circuits the pumped stream which is heated in the primary heat exchanger (3), characterised in that the pressure connection device consists of two pressure connections (15, 16) which are arranged on the housing (19) of the centrifugal pump (4) and of which one is connected on the input side to the first heating circuit (6) and the other is connected on the input side so the second heating circuit (8) or to the return of the first heating circuit (6), in that input of the hot pumped stream flowing through the centrifugal pump (4) can be controlled by reversal of the direction of rotation or by reversal of the direction of rotation and variation of the speed of the pump impeller (7) in connection with a water conducting device (30) provided inside the pump housing (19) in the region in front of the two pressure connections (15, 16), in that on the housing (19) of the centrifugal pump (4) is provided a return chamber (20) with connections (21, 22) for the return of water at least from the two heating circuits (6, 8) to the primary heat exchanger (1) and with a ventilation device (26, 27), and in that a bypass (28) with a valve (29) is provided, which leads from the pressure chamber of the centrifugal pump (4) to the return chamber (2).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. Des.
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☐ 51. Document ID: US 5006463 A, CA 1336576 C

L2: Entry 51 of 62

File: DWPI

Apr 9, 1991

DERWENT-ACC-NO: 1991-124887

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.3&ref=2&dbname=PGPB,USPT,US...> 11/19/04



DERWENT-WEEK: 199117  
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TITLE: Discriminating between vaccinated and infected animals of bruiella sp - by detecting serological activity by immunoassay and differentiating sera of Gp.

INVENTOR: BUNDLE, D R; CHERWONOGRODZKY, J W ; DUNCAN, J R ; NIELSEN, K ; PERRY, M B ; WRIGHT, P F ; CHERWONOG, J W

PRIORITY-DATA: 1986CA-0519243 (September 26, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 5006463 A</u>	April 9, 1991		000	
<u>CA 1336576 C</u>	August 8, 1995		000	G01N033/569

INT-CL (IPC): C12Q 1/04; G01N 33/53; G01N 33/569

ABSTRACTED-PUB-NO: US 5006463A  
BASIC-ABSTRACT:

Discriminating between (i) normal animals or animals vaccinated or immunised against smooth Brucella sp. or Y. enterocolitica 0:9, and (ii) animals infected with smooth Brucella sp. or Y. enterocolitica 0:9, comprises (a) subjecting serum samples from the animals to immunoassay to detect serological activity against an O-chain polysaccharide (I) contg. 4,6-dideoxy-4-acylamido-D- mannopyranose repeating units; and (b) differentiating the sera of the gp. (i) and (ii) animals on the basis of differences in specificity or affinity between their antibodies to the O-chain polysaccharide. A test kit is also provided.

The animals are cattle. Purified (I) is obtd. from B. abortus 1119-3 or B. abortus 413, Y. enterocolitica 0:9 or B. melitensis 16M and contains 4,6-dideoxy-4-formamido-D-mannopyranose units of formula (II). ADVANTAGE - The method gives improved differentiation between vaccinated and infected animals.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	Index	Draw. Des.
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☐ 52. Document ID: WO 8910036 A, DK 8801850 A, EP 410992 A, JP 03503704 W

L2: Entry 52 of 62

File: DWPI

Oct 19, 1989

DERWENT-ACC-NO: 1989-324384  
DERWENT-WEEK: 198944  
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TITLE: Optical scanner for original where reproduction ratio is adjustable - has CCD unit and lens system longitudinally displaced using common guide rail

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1988DK-0001850 (April 6, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 8910036 A</u>	October 19, 1989	E	008	
<u>DK 8801850 A</u>	October 7, 1989		000	
<u>EP 410992 A</u>	February 6, 1991		000	

INT-CL (IPC): G03B 27/34; H04N 1/10

ABSTRACTED-PUB-NO: WO 8910036A  
BASIC-ABSTRACT:

A scanner, for an original document has an original table (1), a lens system (10) and a CCD-unit (12). The scanner is of the type in which the scanning is performed by moving the CCD-unit in the focussing plane of the lens system perpendicular to the longitudinal axis of the lens system. The lens system and the CCD-unit in dependence on each other are moved along the longitudinal axis of the lens system in dependence on each to obtain different reproduction ratios in such a manner that the light sensitive area of the remains in the focussing plane of the lens system, irrespective of the chosen reproduction ratio.

The displacement of the CCD-unit and the lens system along the longitudinal system is controlled by the common guide rail (4). The guide rail consists of guide tracks for the CCD-unit and the lens system. The guide member (24,25) are associated with the CCD-unit and the lens system (6), respectively, and are positioned at the same level in the separate guide tracks (20-30).

ADVANTAGE - Allows for arbitrarily choosing reproduction ratios within predetermined range without changing lens so that scanner always functions to utilise optimum resolution.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	Keywords	Drawings
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☐ 53. Document ID: WO 8707095 A, CA 1276436 C, DE 3780447 G, DK 8602109 A, EP 286645 A, EP 286645 B1, FI 8705665 A, FI 88445 B, NO 8800037 A, US 4828634 A

L2: Entry 53 of 62

File: DWPI

Nov 19, 1987

DERWENT-ACC-NO: 1987-335055

DERWENT-WEEK: 198747

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TITLE: Bridging method for semiconducting shield on plastic insulated cables - having shield bridge is offset to core joint using shaped sleeve piece consisting of material relatively stable against heat action

INVENTOR: NIELSEN, K ; NIELSEN, O K ; NIELSEN, O

PRIORITY-DATA: 1986DK-0002109 (May 7, 1986)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 8707095 A	November 19, 1987	E	007	
CA 1276436 C	November 20, 1990		000	
DE 3780447 G	August 20, 1992		000	H02G001/14
DK 8602109 A	February 24, 1988		000	
EP 286645 A	October 19, 1988	E	000	
EP 286645 B1	July 15, 1992	E	006	H02G001/14
FI 8705665 A	December 22, 1987		000	
FI 88445 B	January 29, 1993		000	H02G001/14
NO 8800037 A	February 29, 1988		000	

INT-CL (IPC): H01B 13/06; H02G 1/14; H02G 15/00

ABSTRACTED-PUB-NO: DE 3780447G

BASIC-ABSTRACT:

Before cable ends are joined, a semi conducting sleeve piece (14) is threaded over one end. Sleeve piece has internal diameter slightly greater than diameter of cable insulation with one end enlarged to give a conical internal form (11). The conical end of the sleeve has a rounded edge and the outer diameter thickened to form a beading (12).

After the cores (1,2) are joined and covered with vulcanisable insulating tape windings (8), the semiconducting bridge is made to one side of the main core joint at a point where the original insulation (4) is intact. The sleeve is positioned over the separated semiconducting layers (12,13) prior to vulcanisation of the joint and the sleeve beading helps to preserve the shape of the joint during vulcanisation.

USE/ADVANTAGE - Medium and high voltage XLPE cable joints. Improved shield bond.  
ABSTRACTED-PUB-NO:

EP 286645B EQUIVALENT-ABSTRACTS:

Before cable ends are joined, a semi conducting sleeve piece (14) is threaded over one end. Sleeve piece has internal diameter slightly greater than diameter of cable insulation with one end enlarged to give a conical internal form (11). The conical end of the sleeve has a rounded edge and the outer diameter thickened to form a beading (12).

After the cores (1,2) are joined and covered with vulcanisable insulating tape windings (8), the semiconducting bridge is made to one side of the main core joint at a point where the original insulation (4) is intact. The sleeve is positioned over the separated semiconducting layers (12,13) prior to vulcanisation of the joint and the sleeve beading helps to preserve the shape of the joint during vulcanisation.

USE/ADVANTAGE - Medium and high voltage XLPE cable joints. Improved shield bond.

A method of re-establishing mutually insulated semiconducting layers (9, 10) around their respective ones of a pair of spliced electric cables (1, 2) in connection with re-establishment of a cable insulation (8) between the central electric conductor (1, 2) and the semi-conducting layers (9, 10), characterised by terminating and re-establishing the semi-conducting layer (10) of one cable with the original cable insulation (4) as a base and integrating the re-established semi-conducting layers (13, 10) and said insulation (8) by thermal treatment so that the area where the two semi-conducting layers (9, 10) are mutually insulated is positioned to engage the original cable insulation.

US 4828634A

A method of re-establishing mutually insulated semiconducting layers (9,10) around respective ones of a pair of spliced electric cables, which is characterised in that the semi-conducting layer of at least one cable is terminated with a stable cable insulation (4) as a base. A sleeve (12) for use in the performance of this method consists of a material relatively stable against heat action and comprises a cylinder-shaped part (15) with a predetermined inside diameter as well as a hopper-shaped part. (5pp)

WO 8707095A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	Form	Draw Des
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□ 54. Document ID: EP 196551 A, BR 8601402 A, CA 1280096 C, CN 8602024 A, DE 3689910 G, DK 166954 B, DK 8501406 A, EP 196551 B1, ES 8704410 A, FI 8601313 A, NO 8601132 A, SU 1838190 A3, US 5072830 A, US 5314069 A

L2: Entry 54 of 62

File: DWPI

Oct 8, 1986

DERWENT-ACC-NO: 1986-266363

DERWENT-WEEK: 198641

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TITLE: Reactive particulate materials package formation process - by evacuating and sealing envelope after separate layers of reactive and inert material are inserted

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1985DK-0001406 (March 28, 1985)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 196551 A</u>	October 8, 1986	E	005	
<u>BR 8601402 A</u>	December 9, 1986		000	
<u>CA 1280096 C</u>	February 12, 1991		000	
<u>CN 8602024 A</u>	September 24, 1986		000	
<u>DE 3689910 G</u>	July 21, 1994		000	B65D081/32
<u>DK 166954 B</u>	August 9, 1993		000	B65B029/00
<u>DK 8501406 A</u>	September 29, 1986		000	
<u>EP 196551 B1</u>	June 15, 1994	E	004	B65D081/32
<u>ES 8704410 A</u>	June 16, 1987		000	
<u>FI 8601313 A</u>	September 29, 1986		000	
<u>NO 8601132 A</u>	October 20, 1986		000	
<u>SU 1838190 A3</u>	August 30, 1993		002	B65B029/10
<u>US 5072830 A</u>	December 17, 1991		000	
<u>US 5314069 A</u>	May 24, 1994		004	B65D081/20

INT-CL (IPC): B65B 29/00; B65B 29/10; B65B 31/00; B65D 81/20; B65D 81/32; G03C 1/42; G03C 3/00

ABSTRACTED-PUB-NO: EP 196551A

BASIC-ABSTRACT:

Mutually reactive particulate materials are placed in a vacuum-packing envelope in separate layers with an inert material between. The envelope is then evacuated and sealed. The inert material is pref. inert to both particulate material layers.

The inert material can be a substance which has to be used simultaneously with the two reactive materials. The reactive materials can be stored in the same package for long periods of time without adverse effect.

USE - Esp. during the development of exposed photographic film.

ABSTRACTED-PUB-NO:

EP 196551B EQUIVALENT-ABSTRACTS:

A process for providing a package containing at least two mutually reactive particulate photographic materials by arranging said particulate photographic materials in separate layers with at least one intervening layer of a solid

particulate material which is inert relative to each adjacent layer of reactive material interposed therebetween, characterised by introducing said layers in an envelope suitable for vacuum packing and evacuating and sealing said envelope.

US 5072830A

The process comprises the steps of providing an envelope suitable for vacuum packaging which defines a single chamber. This providing at least three solid particulate photographic materials, with at least two of which are mutually reactive and at least one of which is inert relative to the two which are mutually reactive.

Then separately introducing the solid particulate photographic materials into the single chamber in the envelope such that solid photographic materials which are mutually reactive are placed in separate layers of the envelope and are separated by at least one intervening layer of solid particulate material which is inert relative to each adjacent layer of said materials which within the envelope. Then evacuating the envelope of air, sealing the evacuated envelope, thereby immobilising the layers of solid particulate materials relative to one another.

USE - For packaging solid particulate photographic materials used in the development of exposed photographic films. (4pp)

US 5314069A

The process comprises the steps of introducing the reactive materials into an envelope suitable for vacuum packing. This places the reactive materials within the envelope in separate layers with at least one intervening separating layer of a material which is inert relative to the adjacent layer of a reactive material, evacuating and sealing the envelope.

USE - For obtaining a package containing at least two mutually reactive materials for use in the development of exposed photographic films.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw. Des.
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☐ 55. Document ID: EP 155911 A, JP 61005080 A

L2: Entry 55 of 62

File: DWPI

Sep 25, 1985

DERWENT-ACC-NO: 1985-238392

DERWENT-WEEK: 198539

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TITLE: New 6-amino-ring subst. purine derivs. - useful as plant growth regulators, e.g. for dwarfing cereals

INVENTOR: ANDERSEN, K; ELBAYOUKI, K ; NIELSEN, F ; NIELSEN, K ; PEDERSEN, E

PRIORITY-DATA: 1984CH-0001367 (March 19, 1984)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 155911 A	September 25, 1985	G	049	
JP 61005080 A	January 10, 1986		000	

INT-CL (IPC): A01N 43/90; C07D 473/34

ABSTRACTED-PUB-NO: EP 155911A

BASIC-ABSTRACT:

Amino-purine derivs. of formula (I) and their acid addn. salts are new.

R1 and R2=H or 1-6C alkyl, or one of them is phenyl or naphthyl (opt. substd. 1-5 times by halo; 1-4C alkyl, alkoxy or alkylthio (all opt. halo substd.) NO2; CN; COOH; 1-4C alkyl- or alkoxy-carbonyl, or CONR1R2); or NR1R2 is a 5-7 membered heterocycle; R3=H, 1-6C alkyl or phenyl (opt. substd. as above); R4=H, or 1-6C alkyl; R5 is as R3; but at least one of R3,R4, and R5 is other than H or Me.

USE - (I) are plant growth regulators. Specified applications are dwarfing oats, wheat, barley and rye to reduce lodging, to inhibit growth of grass and weeds; to improve yield of leguminous plants (esp. soya), cereals or cotton; and to stimulate root growth in freshly sown seeds.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	EMMC	Draw Des
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☐ 56. Document ID: DE 3124241 A

L2: Entry 56 of 62

File: DWPI

Dec 30, 1982

DERWENT-ACC-NO: 1983-A3712K

DERWENT-WEEK: 198302

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TITLE: Hand operated sanitary kitchen mixer - has overhanging operating handle projecting inside rotating cover in friction contact with driving member

INVENTOR: NIELSEN, K ; ZWINK, H

PRIORITY-DATA: 1981DE-3124241 (June 20, 1981)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 3124241 A	December 30, 1982		019	

INT-CL (IPC): F16K 11/02

ABSTRACTED-PUB-NO: DE 3124241A

BASIC-ABSTRACT:

The sanitary mixer for domestic use has a cylindrical body with a spout discharging from the bottom and a carrying handle overhanging the top. The handle has a vertical part connected to a horizontal part which passes through an opening at the side of the cylindrical cover. The cover rotates and does not tilt, whereas the handle tilts about an axis inside the cover.

The neck is in cartridge form and combined with the cover, using a ring shaped adapter with a set of tongues projecting upwards from it forming a connection with it and also a friction connection with the operating handle. The adapter screws onto the top of the neck.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	EMMC	Draw Des
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☐ 57. Document ID: SE 8102462 A, DK 8202350 A, FI 8201847 A

L2: Entry 57 of 62

File: DWPI

Nov 15, 1982

DERWENT-ACC-NO: 1982-A4815J  
DERWENT-WEEK: 198248  
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TITLE: Bottle or can filling machine valve cone - moves away from seat, through to tapping tube mouth and back to starting point

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1981SE-0002462 (April 16, 1981)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>SE 8102462 A</u>	November 15, 1982		000	
<u>DK 8202350 A</u>	January 16, 1984		000	
<u>FI 8201847 A</u>	January 31, 1984		000	

INT-CL (IPC): B67C 3/28

ABSTRACTED-PUB-NO: SE 8102462A  
BASIC-ABSTRACT:

The machine is for drawing off products of different consistency into bottles or cans, and has a measured feed unit (3) to which is connected a tapping tube (6). The feed unit has a valve (7) with a cone (8) working in conjunction with a seat (9), and fixed on the free end of a piston connecting rod (12) in an operating cylinder (11).

The connecting rod, at its end opposite to the cone, is activated by a plunger (17) in a control cylinder (18). The cone, with the aid of the operating and control cylinders, moves firstly away from the tapping tube (6), out of engagement with the seat (9), and then through the tapping tube to its mouth (23). The cycle terminates with its movement back through the tube to its starting position engaging the seat (9).

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMNC	Draw Des
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☐ 58. Document ID: DE 2815404 A, DE 2815404 C, DK 7901356 A, FR 2422990 A, SE 7903049 A

L2: Entry 58 of 62

File: DWPI

Oct 11, 1979

DERWENT-ACC-NO: 1979-J8417B  
DERWENT-WEEK: 197942  
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TITLE: Stepping controller for power generators - has reversible binary counter whose output is allocated to binary places to control generators

INVENTOR: IVERSEN, K; JOERGENSEN, J U M ; NIELSEN, K

PRIORITY-DATA: 1978DE-2815404 (April 10, 1978)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 2815404 A</u>	October 11, 1979		000	
<u>DE 2815404 C</u>	August 30, 1984		000	

DK 7901356 A	November 5, 1979	000
FR 2422990 A	December 14, 1979	000
SE 7903049 A	November 26, 1979	000

INT-CL (IPC): G05B 11/32; H03K 13/02; H03K 21/00

ABSTRACTED-PUB-NO: DE 2815404A  
BASIC-ABSTRACT:

Powers of power generators differ by a factor of two, and they are combined in accordance with a binary number depending on an input signal. The controller has a reversible binary counter (3) whose outputs (A1-An) each allocated to a binary place, control the power generators (H1-Hn).

A control circuit (14, 15) delivers to the counter counting pulses so long as the input signal (Vi) differs from a reference signal (Vr) outside a dead zone. The system enables alteration of output power over a wide range proceeding in comparatively small steps.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw Des
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☐ 59. Document ID: DE 2908090 A, DK 7800962 A, SE 7901798 A

L2: Entry 59 of 62

File: DWPI

Sep 13, 1979

DERWENT-ACC-NO: 1979-J0135B  
DERWENT-WEEK: 197938  
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TITLE: Plastics bag strip coiling machine - has delivery system to feed water to last guide roller of machine for coating last bag in coil to produce weak adhesive effect

INVENTOR: NIELSEN, K

PRIORITY-DATA: 1978DK-0000962 (March 3, 1978)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>DE 2908090 A</u>	September 13, 1979		000	
<u>DK 7800962 A</u>	September 24, 1979		000	
<u>SE 7901798 A</u>	October 8, 1979		000	

INT-CL (IPC): B31B 0/00; B65H 19/28

ABSTRACTED-PUB-NO: DE 2908090A  
BASIC-ABSTRACT:

The machine coils a set number of plastics bags formed by a plastic strip, from which they are torn off individually along transverse perforations. Before coiling, part at least of the last bag in the strip is coated with relatively weak adhesive.

Water can be used as the adhesive, to which an expanding agent is added, and applied over most or all of the strip width. It can be fed to the last guide roller of the machine and transferred from this to the last bag on completion of the coiling operation.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw Des
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☐ 60. Document ID: US 4145647 A

L2: Entry 60 of 62

File: DWPI

Mar 20, 1979

DERWENT-ACC-NO: 1979-D1291B

DERWENT-WEEK: 197914

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TITLE: Speed and rotary direction controller - has inverter section with common extinguishing switch in shunt with three branches

INVENTOR: NIELSEN, K ; NYGAARD, N H

PRIORITY-DATA: 1978US-0880636 (February 23, 1978)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 4145647 A	March 20, 1979		000	

INT-CL (IPC): H02P 5/40

ABSTRACTED-PUB-NO: US 4145647A

BASIC-ABSTRACT:

The DC control circuit is for the speed and rotary direction of a three-phase asynchronous motor. The circuit has an inverter section having three branches with a pair of switch elements in series in each of the branches. The inverter section has a common extinguishing switch element in shunt with the three branches. A speed determining frequency generator is responsive to the voltage of the DC supply and an ignition signal generator for operating the inverter switch elements is driven by the frequency generator. An extinction signal generator, reversing circuit and a latching unit are also provided.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Des.
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☐ 61. Document ID: DE 2721634 A, CH 629318 A, DE 2721634 B, DK 7802009 A, US 4196376 A

L2: Entry 61 of 62

File: DWPI

Nov 16, 1978

DERWENT-ACC-NO: 1978-K2641A

DERWENT-WEEK: 197847

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Rotation rate regulator esp. for two motors synchronisation - uses speed measurement pulse differential counter and threshold converter

INVENTOR: HARVEST, N O; HASBERG, N ; NIELSEN, K

PRIORITY-DATA: 1977DE-2721634 (May 13, 1977)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 2721634 A	November 16, 1978		000	
CH 629318 A	April 15, 1982		000	

DE 2721634 B	May 31, 1979	000
DK 7802009 A	December 4, 1978	000
US 4196376 A	April 1, 1980	000

INT-CL (IPC): G05D 13/64; H02P 5/50

ABSTRACTED-PUB-NO: DE 2721634A

BASIC-ABSTRACT:

A rotation rate characteristic controller esp. for synchronised running of two motors, one of which is synchronised with the speed of the other uses a pulse generator for each motor giving pulses with frequency proportional to motor speed.

The pulses from the lead and follower motors are differenced in a counter connected to a D/A (29) converter having a threshold characteristic enabling follower motor speed regulation dependent on the speed difference and threshold parameters. The controller is designed for low cost high accuracy control. An amplifier with adjustable gain and output signal range corresp. to the range of the D/A analogue and is connected between the converter and control element.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	KIND	Draw Des
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☐ 62. Document ID: DE 2703309 B, CH 622137 A, DK 7705803 A, FR 2379191 A, GB 1590241 A, NO 7800194 A, SE 7800956 A

L2: Entry 62 of 62

File: DWPI

Jul 20, 1978

DERWENT-ACC-NO: 1978-F7932A

DERWENT-WEEK: 197830

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Variable speed control for three phase motor - has reversing circuit logic preventing phase change during conduction periods

INVENTOR: NIELSEN, K ; NYGAARD, N H

PRIORITY-DATA: 1977DE-2703309 (January 27, 1977)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 2703309 B	July 20, 1978		000	
CH 622137 A	March 13, 1981		000	
DK 7705803 A	August 28, 1978		000	
FR 2379191 A	September 29, 1978		000	
GB 1590241 A	May 28, 1981		000	
NO 7800194 A	August 21, 1978		000	
SE 7800956 A	August 21, 1978		000	

INT-CL (IPC): H02P 5/00; H02P 7/62

ABSTRACTED-PUB-NO: DE 2703309B

BASIC-ABSTRACT:

The asynchronous three phase motor is driven from a dc source by a chopper and inverter in bridge connection. Pulsing circuits connected to a signal pulse generator across the regulated dc voltage provide the thyristor gating pulses. Reversal of one

pair of phases to give the opposite motor rotation is achieved by a logic circuit.

The direction selector acts through a blocking circuit which only releases the phase change signal during a non-conducting period as determined by the thyristor pulsing signal thereby avoiding the risk of a short circuit. To aid this process the frequency setting signal is made proportional to the magnitude of the regulated dc voltage.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Drawings
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Terms	Documents
Nielsen-K.IN.	62

Display Format:

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Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 20040191264 A1

Using default format because multiple data bases are involved.

L4: Entry 1 of 5

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/184.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMOC	Draw Des
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☐ 2. Document ID: US 20030157117 A1

L4: Entry 2 of 5

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 3. Document ID: US 20020119162 A1

L4: Entry 3 of 5

File: PGPB

Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119162

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/185.1

ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 4. Document ID: WO 3015812 A2

L4: Entry 4 of 5

File: EPAB

Feb 27, 2003

PUB-NO: WO003015812A2

DOCUMENT-IDENTIFIER: WO 3015812 A2  
TITLE: NOVEL METHOD FOR DOWN-REGULATION OF AMYLOID

PUBN-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
RASMUSSEN, PETER BIRK	DK
JENSEN, MARTIN ROLAND	DK
NIELSEN, KLAUS GREGORIUS	DK
KOEFOED, PETER	DK
DEGAN, FLORENCE DAL	DZ

INT-CL (IPC): A61 K 39/00; A61 K 39/385; C07 K 14/47; A61 P 25/28  
EUR-CL (EPC): A61K039/00

ABSTRACT:

CHG DATE=20040413 STATUS=O>Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A beta ). Immunization is preferably effected by administration of analogues of autologous APP or A beta , said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A beta which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A beta and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw Des
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☐ 5. Document ID: WO 2066056 A2

L4: Entry 5 of 5

File: EPAB

Aug 29, 2002

PUB-NO: WO002066056A2  
DOCUMENT-IDENTIFIER: WO 2066056 A2  
TITLE: SYNTHETIC VACCINE AGENTS

PUBN-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	COUNTRY
NIELSEN, KLAUS GREGORIUS	DK
KOEFOED, PETER	DK

INT-CL (IPC): A61 K 39/385  
EUR-CL (EPC): A61K039/00; A61K039/385

ABSTRACT:

CHG DATE=20040508 STATUS=O>The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunisation and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FWMC	Draw. Des.
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
Koefoed-Peter.IN.	5

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Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: KR 2004044465 A, WO 2003015812 A2, US 20030157117 A1, EP 1420815 A2, AU 2002325199 A1, BR 200212047 A

Using default format because multiple data bases are involved.

L5: Entry 1 of 2

File: DWPI

May 28, 2004

DERWENT-ACC-NO: 2003-312718

DERWENT-WEEK: 200463

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Novel analog of amyloid precursor protein or beta amyloid for treating Alzheimer's disease, has amyloid precursor protein/beta amyloid incorporating B-cell epitope of amyloid protein and foreign T-helper epitope

INVENTOR: DAL DEGAN, F; JENSEN, M R ; KOEFOED, P ; NIELSEN, K G ; RASMUSSEN, P B ; DEGAN, F D

PRIORITY-DATA: 2002US-373027P (April 16, 2002), 2001DK-0001231 (August 20, 2001), 2001US-337543P (October 22, 2001), 2002DK-0000558 (April 16, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>KR 2004044465 A</u>	May 28, 2004		000	A61K039/385
<u>WO 2003015812 A2</u>	February 27, 2003	E	122	A61K039/00
<u>US 20030157117 A1</u>	August 21, 2003		000	A61K039/00
<u>EP 1420815 A2</u>	May 26, 2004	E	000	A61K039/00
<u>AU 2002325199 A1</u>	March 3, 2003		000	A61K039/00
<u>BR 200212047 A</u>	August 17, 2004		000	A61K039/00

INT-CL (IPC): A61 K 39/00; A61 K 39/385; A61 P 25/28; C07 K 14/47; C12 N 9/64

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Drawn Des
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☐ 2. Document ID: US 20040191264 A1, WO 200266056 A2, US 20020119162 A1, US 20020187157 A1, EP 1363664 A2, AU 2002233166 A1, JP 2004529881 W

L5: Entry 2 of 2

File: DWPI

Sep 30, 2004

DERWENT-ACC-NO: 2002-706932

DERWENT-WEEK: 200465

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TITLE: Novel immunogen useful for immunizing an animal, has an activated polyhydroxypolymer backbone to which is attached an antigenic determinant including a B cell epitope and another determinant including a T-helper epitope

INVENTOR: KOEFOED, P ; NIELSEN, K G ; JENSEN, M R ; RASMUSSEN, P B



PRIORITY-DATA: 2001US-337543P (October 22, 2001), 2001WO-DK00113 (February 19, 2001), 2001US-0785215 (February 20, 2001), 2001DK-0001231 (August 20, 2001), 2000DK-0000265 (February 21, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040191264 A1	September 30, 2004		000	A61K039/00
WO 200266056 A2	August 29, 2002	E	052	A61K039/385
US 20020119162 A1	August 29, 2002		000	A61K039/00
US 20020187157 A1	December 12, 2002		000	A61K039/00
EP 1363664 A2	November 26, 2003	E	000	A61K039/385
AU 2002233166 A1	September 4, 2002		000	A61K039/385
JP 2004529881 W	September 30, 2004		083	A61K039/385

INT-CL (IPC): A61 K 38/19; A61 K 38/20; A61 K 39/00; A61 K 39/38; A61 K 39/385; A61 K 47/48; A61 P 37/04; A61 P 43/00

ABSTRACTED-PUB-NO: WO 200266056A

BASIC-ABSTRACT:

NOVELTY - An immunogen (I) comprising at least one first antigenic determinant that includes at least one B-cell epitope and/or at least one cytotoxic T lymphocyte (CTL) epitope, and at least one second antigenic determinant that includes a T helper cell epitope (TH epitope), where each of the first and second antigenic determinants are coupled to an activated polyhydroxypolymer carrier, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an immunogenic composition (II) for raising an immune response against an antigen in a mammal, including a human, comprising (I), and optionally an adjuvant.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.

Test details are described, but no results are given.

USE - (I) or (II) contained in a virtual lymph node (VLN) device is useful for immunizing an animal, including a human, against an antigen of choice, where the antigen shares the at least one first antigenic determinant with the immunogen (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	PMID	Draw. Des.
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Terms	Documents
Koefoed-P.IN.	2

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## Search Results - Record(s) 1 through 22 of 22 returned.

☐ 1. Document ID: US 20040191264 A1

**Using default format because multiple data bases are involved.**

L6: Entry 1 of 22

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/184.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMIC	Drawn Des
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☐ 2. Document ID: US 20030157117 A1

L6: Entry 2 of 22

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 3. Document ID: US 20020119162 A1

L6: Entry 3 of 22

File: PGPB

Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119162  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/185.1

ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tressyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 4. Document ID: US 2700569 A

L6: Entry 4 of 22

File: USPT

Jan 25, 1955

US-PAT-NO: 2700569

DOCUMENT-IDENTIFIER: US 2700569 A

TITLE: Refrigerated delivery truck body door arrangement [TEXT AVAILABLE IN USOCR DATABASE]

DATE-ISSUED: January 25, 1955

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
KOEFOED KARL E				

US-CL-CURRENT: 296/24.35; 296/146.4, 49/340, 62/239

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 5. Document ID: US 2599029 A

L6: Entry 5 of 22

File: USPT

Jun 3, 1952

US-PAT-NO: 2599029

DOCUMENT-IDENTIFIER: US 2599029 A

TITLE: Electric heater [TEXT AVAILABLE IN USOCR DATABASE]

DATE-ISSUED: June 3, 1952

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
TURNER CHARLES H				
KOEFOED KARL E				

US-CL-CURRENT: 392/423; 362/293, 392/425, 392/430

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 6. Document ID: US 2079939 A

L6: Entry 6 of 22

File: USPT

May 11, 1937

US-PAT-NO: 2079939

DOCUMENT-IDENTIFIER: US 2079939 A

TITLE: Disappearing bed [TEXT AVAILABLE IN USOCR DATABASE]

DATE-ISSUED: May 11, 1937

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
LOUIS KOEFOED				

US-CL-CURRENT: 5/171; 5/133

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 7. Document ID: US 1477541 A

L6: Entry 7 of 22

File: USPT

Dec 18, 1923

US-PAT-NO: 1477541

DOCUMENT-IDENTIFIER: US 1477541 A

TITLE: Motion-picture machine [TEXT AVAILABLE IN USOCR DATABASE]

DATE-ISSUED: December 18, 1923

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
CLEMENT CLEMENT A				
AXEL BORS-KOEFOED				

US-CL-CURRENT: 352/62

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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☐ 8. Document ID: WO 3041447 A1

L6: Entry 8 of 22

File: EPAB

May 15, 2003

PUB-NO: WO003041447A1

DOCUMENT-IDENTIFIER: WO 3041447 A1

TITLE: MICROPHONE UNIT

PUBN-DATE: May 15, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
CHRISTENSEN, NIELS ERIK HOLM	DK
LAUGESSEN, SOEREN	DK
KOEFOED, ANDERS	DK
MADSEN, STEEN	DK

INT-CL (IPC): H04 R 1/02

EUR-CL (EPC): H04R001/40

ABSTRACT:

CHG DATE=20030702 STATUS=O>The invention relates to a microphone unit for use in connection with a communication device, where the microphone unit comprise: - a linear array of two or more microphones (A,B,C,D,); - a signal processing unit which receives the signals from a number of the microphones in the array and which through signal processing provides an output signal with a degree of directionality, -output means for the signal resulting from the signal processing. According to the invention the microphones (A,B,C,D) are directional microphones of the dipole type mounted with the ports of the dipole pointing in the direction of the linear array thereby enlarging the port spacing of the microphones (A,B,C,D). Low noise levels and good directionality is achieved through this arrangement.

☐ 9. Document ID: WO 3015812 A2

L6: Entry 9 of 22

File: EPAB

Feb 27, 2003

PUB-NO: WO003015812A2

DOCUMENT-IDENTIFIER: WO 3015812 A2

TITLE: NOVEL METHOD FOR DOWN-REGULATION OF AMYLOID

PUBN-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
RASMUSSEN, PETER BIRK	DK
JENSEN, MARTIN ROLAND	DK
NIELSEN, KLAUS GREGORIUS	DK
KOEFOED, PETER	DK
DEGAN, FLORENCE DAL	DZ

INT-CL (IPC): A61 K 39/00; A61 K 39/385; C07 K 14/47; A61 P 25/28

EUR-CL (EPC): A61K039/00

ABSTRACT:

CHG DATE=20040413 STATUS=O>Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A beta ). Immunization is preferably effected by administration of analogues of autologous APP or A beta , said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A beta which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A beta and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

☐ 10. Document ID: WO 2066056 A2

L6: Entry 10 of 22

File: EPAB

Aug 29, 2002

PUB-NO: WO002066056A2

DOCUMENT-IDENTIFIER: WO 2066056 A2

TITLE: SYNTHETIC VACCINE AGENTS

PUBN-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME  
NIELSEN, KLAUS GREGORIUS  
KOEFOED, PETER

COUNTRY  
DK  
DK

INT-CL (IPC): A61 K 39/385  
EUR-CL (EPC): A61K039/00; A61K039/385

ABSTRACT:

CHG DATE=20040508 STATUS=O>The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunisation and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. Des.
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☐ 11. Document ID: EP 971558 A2

L6: Entry 11 of 22

File: EPAB

Jan 12, 2000

PUB-NO: EP000971558A2  
DOCUMENT-IDENTIFIER: EP 971558 A2  
TITLE: Device for reproducing audio signals

PUBN-DATE: January 12, 2000

INVENTOR-INFORMATION:

NAME  
KOEFOED, OLE  
BAUERSCHMIDT, WERNER  
PECHMANN, REINER

COUNTRY  
DE  
DE  
DE

INT-CL (IPC): H04 R 5/02  
EUR-CL (EPC): H04R005/02

ABSTRACT:

The arrangement has an audio signal processor (1) with a microcomputer, a remote control unit (4) and at least one loudspeaker (2,3) located separately from the audio signal processor and remote control unit. The remote control unit has a radio transmitter and the loudspeaker includes a radio receiver. The loudspeaker receives remote control signals from the remote control unit.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. Des.
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☐ 12. Document ID: WO 8807320 A1

L6: Entry 12 of 22

File: EPAB

Oct 6, 1988

PUB-NO: WO008807320A1

DOCUMENT-IDENTIFIER: WO 8807320 A1

TITLE: RACK FOR PLANT PITS AND SIMILAR TRAYS OF FLOWERPOTS, WHICH ARE INTERCONNECTED ALONG THEIR EDGES

PUBN-DATE: October 6, 1988

INVENTOR-INFORMATION:

NAME

COUNTRY

KOEFOED, HANSEN TORBEN HENNING

DK

US-CL-CURRENT: 47/83

INT-CL (IPC): A01G 9/00

EUR-CL (EPC): A01G009/10

ABSTRACT:

Rack for plant pits and similar trays of flowerpots, which are interconnected along their edges, said rack comprising a pair of mutually corresponding plateshaped end pieces (1) with a number of sockets (2) for insertion of the same number of connecting bars (3), which at both ends are provided with opposite notches, which by rotation of the bars into a vertical position grip on both sides of the end piece, the socket having such a shape that the bars may be inserted in the socket when tilted. In order to enable an adaptation of the rack to plant pits of different sizes of the pots, some of the sockets are arranged on plate elements (12) which are displaceable in elongate openings in the end pieces (1), the openings having such a vertical dimension that the plate elements and the end pieces are secured to each other by means of the notches in the vertical position of the bars.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Desc
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☐ 13. Document ID: AU 200245744 A

L6: Entry 13 of 22

File: DWPI

Dec 4, 2003

DERWENT-ACC-NO: 2004-044223

DERWENT-WEEK: 200405

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TITLE: Timber milling apparatus for use with saw, comprises transverse elements attached at equal intervals between side rails which are spaced apart longitudinally

INVENTOR: KOEFOED, D

PRIORITY-DATA: 2002AU-0045744 (May 31, 2002)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

AU 200245744 A

December 4, 2003

031

B27B005/16

INT-CL (IPC): B27 B 5/16; B27 B 5/29



ABSTRACTED-PUB-NO: AU 200245744A  
BASIC-ABSTRACT:

NOVELTY - Ground bearing leg assemblies are releasably attached to the end pieces located transversely at the end of side rails which are spaced apart longitudinally. Transverse elements are attached at equal intervals between the side rails.

USE - For use with saw.

ADVANTAGE - Cutting in both horizontal and vertical orientation is achieved. Strength of main ladder rail assembly is increased by attaching transverse elements.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of mill adapted for slabbing. (Drawing includes non-English language text).

timber milling apparatus 10

leg assemblies 16

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Drawn	Des
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☐ 14. Document ID: AU 2002351708 A1, WO 2003041447 A1, EP 1444862 A1

L6: Entry 14 of 22

File: DWPI

May 19, 2003

DERWENT-ACC-NO: 2003-449509  
DERWENT-WEEK: 200464  
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TITLE: Microphone unit for use in connection with communication device, comprises linear array of two or more microphones and signal processing unit that receives signals from microphones

INVENTOR: CHRISTENSEN, N E H; KOEFOED, A ; LAUGESSEN, S ; MADSEN, S ; BUEGER, C C

PRIORITY-DATA: 2001DK-0001647 (November 7, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 2002351708 A1	May 19, 2003		000	H04R001/02
WO 2003041447 A1	May 15, 2003	E	015	H04R001/02
EP 1444862 A1	August 11, 2004	E	000	H04R001/02

INT-CL (IPC): H04 R 1/02; H04 R 3/00; H04 R 3:00

ABSTRACTED-PUB-NO: WO2003041447A  
BASIC-ABSTRACT:

NOVELTY - The microphone unit has a top part (1), and a bottom part (2) where the two parts enclose the electronics of the unit. In the top part a separate compartment (3) is provided, which accommodates the microphones (A,B,C,D), all mounted in a line array. A cover (6) is provided for the compartment. One or more of the microphones have a tube (13,14) extending from the rear and front port. Resilient suspensions (15) are mounted on the tube (13,14) ends.

DETAILED DESCRIPTION - In the compartment grooves (4) are provided for the reception of the ring (15b) and similar grooves are provided in the cover part. Once the cover is fastened over the compartment the resilient rings encircling each of the tubes are

retained in the grooves. Thus the microphones are resiliently suspended and effectively sound isolated from the housing parts.

USE - With a number of different communication devices such as, e.g., a hearing aid, a headset, a mobile telephone or a personal computer.

ADVANTAGE - Low noise levels and high degree of directionality is achieved. If during handling the device a foreign substance enters the cover part, this substance is retained in the compartment and does not reach the electronic parts of the unit. There is an easy access to the microphones, so that defect microphone can be easily replaced.

DESCRIPTION OF DRAWING(S) - The drawing is an exploded view of the microphone unit.

Top part 1

Bottom part 2

Compartment 3

Grooves 4

Cover 6

Tubes 13,14

Resilient suspensions 15

Ring 15b

Microphones A,B,C,D

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw. Des.
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☐ 15. Document ID: KR 2004044465 A, WO 2003015812 A2, US 20030157117 A1, EP 1420815 A2, AU 2002325199 A1, BR 200212047 A

L6: Entry 15 of 22

File: DWPI

May 28, 2004

DERWENT-ACC-NO: 2003-312718

DERWENT-WEEK: 200463

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TITLE: Novel analog of amyloid precursor protein or beta amyloid for treating Alzheimer's disease, has amyloid precursor protein/beta amyloid incorporating B-cell epitope of amyloid protein and foreign T-helper epitope

INVENTOR: DAL DEGAN, F; JENSEN, M R ; KOEFOED, P ; NIELSEN, K G ; RASMUSSEN, P B ; DEGAN, F D

PRIORITY-DATA: 2002US-373027P (April 16, 2002), 2001DK-0001231 (August 20, 2001), 2001US-337543P (October 22, 2001), 2002DK-0000558 (April 16, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
KR 2004044465 A	May 28, 2004		000	A61K039/385
WO 2003015812 A2	February 27, 2003	E	122	A61K039/00
US 20030157117 A1	August 21, 2003		000	A61K039/00

EP 1420815 A2	May 26, 2004	E	000	A61K039/00
AU 2002325199 A1	March 3, 2003		000	A61K039/00
BR 200212047 A	August 17, 2004		000	A61K039/00

INT-CL (IPC): A61 K 39/00; A61 K 39/385; A61 P 25/28; C07 K 14/47; C12 N 9/64

ABSTRACTED-PUB-NO: WO2003015812A

BASIC-ABSTRACT:

NOVELTY - An analog (I) of amyloid precursor protein (APP) or beta amyloid (A beta ) which is derived from an animal APP or A beta , comprising APP or A beta incorporating at least one B-cell epitope of APP and/or A beta and at least one foreign T-helper epitope (TH epitope) so that immunization of the animal with the analog induces production of antibodies against the animal's autologous APP or A beta , is new.

DETAILED DESCRIPTION - An analog of amyloid precursor protein (APP) or beta amyloid (A beta ) which is derived from an animal APP or A beta , comprises APP or A beta incorporating at least one B-cell epitope of APP and/or A beta and at least one foreign T-helper epitope (TH epitope) so that immunization of the animal with the analog induces production of antibodies against the animal's autologous APP or A beta , where the analog is:

(a) a polyamino acid that consists of at least one copy of a subsequence of residues 672-714 in a 770 amino acid sequence (S1), given in the specification, where the foreign T-helper epitope (TH epitope) is incorporated by amino acid addition and/or insertion and/or deletion and/or substitution, where the subsequence is selected from residues 1-42, 1-40, 1-39, 1-35, 1-34, 1-28, 1-12, 1-5, 13-28, 13-35, 17-28, 25-35, 35-40, 36-42, and 35-42 of the amino acid sequence consisting of amino acid residues 673-714 of (S1);

(b) a polyamino acid that contains the foreign TH epitopes and a disrupted APP or A beta sequence so that the analog does not include any subsequence of (S1) that binds productively to major histocompatibility complex (MHC) class II molecules initiating a T-cell response;

(c) a polyamino acid that comprises the foreign TH epitope and APP or A beta derived amino acids, and comprises one single methionine residue located in the C-terminus of the analog, where other methionine residues in APP or A beta and in the foreign TH epitope have been substituted or deleted, and preferably have been substituted by leucine or isoleucine;

(d) a conjugate comprising a polyhydroxypolymer backbone to which is separately coupled a polyamino acid as defined in (a), (b) and/or (c); and/or

(e) a conjugate comprising a polyhydroxypolymer backbone to which is separately coupled the foreign TH epitope and a polyamino acid selected from the subsequence as defined in (a), a disrupted sequence of APP or A beta as defined in (b), and an APP or A beta derived amino acid sequence that comprises one single methionine residue located in the C-terminus, where other methionine residues in APP or A beta and in the foreign TH epitope have been substituted or deleted, and preferably have been substituted by leucine or isoleucine.

INDEPENDENT CLAIMS are also included for:

(1) an immunogenic composition (C) comprising (I) and a carrier and/or vehicle and optionally an adjuvant;

(2) a nucleic acid fragment (II) which encodes (I);

(3) a vector (III) carrying (II), and is capable of autonomous replication;

- (4) a transformed cell carrying (III), and is capable of replicating (II);
- (5) a composition for inducing production of antibodies against amyloid, comprises (II) or (III), and a carrier, vehicle or adjuvant; and
- (6) a stable cell line which carries (III) and expresses (II), and optionally secretes or carries (I) on its surface.

ACTIVITY - Nootropic; Neuroprotective.

MECHANISM OF ACTION - Vaccine (claimed).

Mice transgenic for human APP (Alzheimer's precursor protein), called TgRND8+, expressed a mutated form of APP that results in high concentration of A beta -40 and A beta -42 in the mouse brains. The mice (8-10 mice/group) were immunized with either A beta -42 or hAB43+-34 variant, four times at two-week intervals. Doses were either 100 mg for A beta or 50 mg for hAB43+-34. Mice were bled at day 43 (after three injections) and after day 52 (after four injections) and the sera were used to determine the level of anti-A beta -42 specific titers using a direct A beta -42 enzyme linked immunosorbent assay (ELISA). The antibody titers obtained when immunizing with hAB43+-34 A beta variant were 4 times and 7.5 times higher after 3 and 4 immunizations, respectively, than the titers obtained when using the unaltered wild-type A beta -42 as an immunogen. The amount of variant used for immunization was only 50 % of the amount of wild-type sequence used for immunization.

USE - (I) is useful for in vivo down-regulation of APP or A beta in an animal, including a human being, and for treating and/or preventing and/or ameliorating Alzheimer's disease or other diseases and conditions characterized by amyloid deposits (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMID	Draw. Des.
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☐ 16. Document ID: US 20040191264 A1, WO 200266056 A2, US 20020119162 A1, US 20020187157 A1, EP 1363664 A2, AU 2002233166 A1, JP 2004529881 W

L6: Entry 16 of 22

File: DWPI

Sep 30, 2004

DERWENT-ACC-NO: 2002-706932

DERWENT-WEEK: 200465

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TITLE: Novel immunogen useful for immunizing an animal, has an activated polyhydroxypolymer backbone to which is attached an antigenic determinant including a B cell epitope and another determinant including a T-helper epitope

INVENTOR: KOEFOED, P; NIELSEN, K G ; JENSEN, M R ; RASMUSSEN, P B

PRIORITY-DATA: 2001US-337543P (October 22, 2001), 2001WO-DK00113 (February 19, 2001), 2001US-0785215 (February 20, 2001), 2001DK-0001231 (August 20, 2001), 2000DK-0000265 (February 21, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040191264 A1	September 30, 2004		000	A61K039/00
WO 200266056 A2	August 29, 2002	E	052	A61K039/385
US 20020119162 A1	August 29, 2002		000	A61K039/00
US 20020187157 A1	December 12, 2002		000	A61K039/00
EP 1363664 A2	November 26, 2003	E	000	A61K039/385

AU 2002233166 A1

September 4, 2002

000

A61K039/385

JP 2004529881 W

September 30, 2004

083

A61K039/385

INT-CL (IPC): A61 K 38/19; A61 K 38/20; A61 K 39/00; A61 K 39/38; A61 K 39/385; A61 K 47/48; A61 P 37/04; A61 P 43/00

ABSTRACTED-PUB-NO: WO 200266056A

BASIC-ABSTRACT:

NOVELTY - An immunogen (I) comprising at least one first antigenic determinant that includes at least one B-cell epitope and/or at least one cytotoxic T lymphocyte (CTL) epitope, and at least one second antigenic determinant that includes a T helper cell epitope (TH epitope), where each of the first and second antigenic determinants are coupled to an activated polyhydroxypolymer carrier, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an immunogenic composition (II) for raising an immune response against an antigen in a mammal, including a human, comprising (I), and optionally an adjuvant.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.

Test details are described, but no results are given.

USE - (I) or (II) contained in a virtual lymph node (VLN) device is useful for immunizing an animal, including a human, against an antigen of choice, where the antigen shares the at least one first antigenic determinant with the immunogen (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. Des.
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☐ 17. Document ID: EP 971558 A2, DE 19829897 A1

L6: Entry 17 of 22

File: DWPI

Jan 12, 2000

DERWENT-ACC-NO: 2000-149147

DERWENT-WEEK: 200014

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TITLE: Reproduction device for audio signals

INVENTOR: BAUERSCHMIDT, W; KOEFOED, O ; PECHMANN, R

PRIORITY-DATA: 1998DE-1029897 (July 6, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 971558 A2	January 12, 2000	G	006	H04R005/02
DE 19829897 A1	January 13, 2000		000	H04R005/00

INT-CL (IPC): G08 C 17/02; H04 R 5/00; H04 R 5/02

ABSTRACTED-PUB-NO: EP 971558A

BASIC-ABSTRACT:

NOVELTY - The arrangement has an audio signal processor (1) with a microcomputer, a remote control unit (4) and at least one loudspeaker (2,3) located separately from

the audio signal processor and remote control unit. The remote control unit has a radio transmitter and the loudspeaker includes a radio receiver. The loudspeaker receives remote control signals from the remote control unit.

USE - For reproducing audio signals.

ADVANTAGE - Overcomes certain disadvantages of conventional arrangements such as the need to connect the audio signal processor to the loudspeakers by cables.

DESCRIPTION OF DRAWING(S) - The drawing shows a block schematic representation of the reproduction arrangement.

Audio signal processor 1

Radio units 1a, 2a, 3a, 4a

Loudspeakers 2, 3

Remote control unit 4

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw. Des.
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☐ 18. Document ID: WO 8807320 A, AU 8815967 A, DK 8701706 A

L6: Entry 18 of 22

File: DWPI

Oct 6, 1988

DERWENT-ACC-NO: 1988-292662

DERWENT-WEEK: 198841

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TITLE: Rack for trays of flower pots, interconnected along edges - has pair of mutually corresponding plate shaped end pieces with sockets for insertion of same number of bars, with notches at either end

INVENTOR: KOEFOED, H

PRIORITY-DATA: 1987DK-0001706 (April 3, 1987)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 8807320 A</u>	October 6, 1988	E	011	
<u>AU 8815967 A</u>	November 2, 1988		000	
<u>DK 8701706 A</u>	October 4, 1988		000	

INT-CL (IPC): A01G 9/00; A47B 57/58; A47G 7/07

ABSTRACTED-PUB-NO: WO 8807320A

BASIC-ABSTRACT:

The rack for plant pits or similar trays of flowerpots has a pair of mutually corresp. plate shaped end pieces (1) which have a number of sockets (2) for the insertion of the same number of connecting bars (3). The bars have opposite notches at both ends which grip on both sides of the end piece when the bars are rotated into a vertical position. The sockets are shaped so that the bars may be inserted when tilted.

Some of the sockets are arranged on plate elements (12) which can be displaced in elongate openings in the end pieces. The plate elements and the end pieces have toothing (16) on some of the contact surfaces.

ADVANTAGE - Allows different sizes of pots to be stored in same rack.

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMOC	Draw Des
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☐ 19. Document ID: US 2700569 A

L6: Entry 19 of 22

File: USOC

Jan 25, 1955

US-PAT-NO: 2700569

DOCUMENT-IDENTIFIER: US 2700569 A

TITLE: Refrigerated delivery truck body door arrangement

DATE-ISSUED: January 25, 1955

US-CL-CURRENT: 296/24.35; 296/146.4, 49/340, 62/239

DOCUMENT TEXT:

Jan. 25, 1955 K. E. KOEFOED 2,700,569 REFRIGERATED DELIVERY TRUCK BODY DOOR ARRANGEMENT Filed Sept. 30, 1952 2 Sheets-Sheet 1 18 16 /7 (15 3: .32 9 -A/2 L6 14 10 3Z -7,7. .3. - 0 e f o c d BY ATTORNEY

Jan. 25, 1955 2,700,569 K. E. KOEFOED REFRIGERATED DELIVERY TRUCK BODY DOOR ARRANGEMENT Filed Sept. 30, 1952 2 Sheets-Sheet 2 7id Fi-' 4. 22 2.f 24 26 21 0 1?9 - ?7 Z5 ,26 INVEN7'OR. ffa, rt fi'o eioe d BY ATTORNE)L

Unl\*ted States @P'atent@ Office 2170 69 2,700,569 REFRIGERATED DE4LJIVERY TRUCK BODY DOOIR 5 ARRANGEMENT Karl E. Koefoed, San Francisco, Caflf. Application September 30, 1952, Serial No. 312,242 10 6 Claims. (Cl. 296-24) The present invention relates to improvements in re- 11 frigerated truck bodies, and has particular ieferences to retail milk delivery trucks. The principal object of the invention is to provide a truck body of the character described in which the cases containiing the milk bottles or cartons can bestored under 20 perfectly sanitary conditions, and under perfect tempera- ture control, while at the same time, means are provided for giving the driver or operator convenient access to the cases with a minimum loss of refrigerated air. More particularly it is proposed to provide a bulk- 25 head dividin.- the truck body into two compartments, one of which serves as a storage compartment, while the other f<)rms the driver's cab. It is further proposed in my invention, to provide a door opening in this bulkhead with a door adapted for 6asy 30 opening and closing, so that the driver may have ea@y and immediate access to the storage compartmerit from his driver's cab. Another object of the invention is to provide @ontroi means for the door whereby the latter is readily opened 35 and closed by the mere operation of on6 or more switches ,provided in the cab. It is additionally proposed in the present invention@t- o provide a pit in the storage compartment immediately ad- jacent the door, the bottom of the pit being suffici6ntly 40 spaced from the r<)of of the body to allow a person to stand upright therein for read@ access to -and handling of containers stored in cases in the stordge coinpartment. Further objects and advantages of my invention will appear as the specification proceeds, and the new and 45 novel features of my refrigerated truck body will be fully defined in the claims attached thereto. The preferred form of my invention is iflustr@ated in the accompanying drawings folrming part of this tion, in which: 50 Figure 1 shows a fragmentary horizoital section through a portion of my truck body; Figure 2, a side view of a truck having the features of my invention incorporated therein, portions being shown in section; I . r, r, Figure 3, a ffront view of a bulkhead used in my, invention; Figure 4, a perspective view of a door-operating mecha- nism, showing the door in closed position; and Figure 5, a similar view, showing the d<)or in ()pen po- 60 sition. While T have shown only the preferred form of my in- vention, it should be understood that various changes or modifications may be made within the scope of the claims attached hereto, without departing from the spirit of the 0,5 invention.

,Referring to the drawing in detail, the truck body 1 is supported on four wheels 2, in a conventional manner and may be propelled by any suitable power means. The truck body is generally rectangular in form, and represents in its general features, a floor 3, side walls 4 rising from the side edges thereof, a rear wall 5, and a roof structure 6 supported on said walls. The rear wall may be equipped with a pair of swinging doors 7. A bulkhead 8 extends transversely across the body, substantially in spaced and parallel relation to the rear wall, and separates the body into two compartments 9 and 10, the former serving as a driver's compartment, and the latter generally as a storage compartment. The driver's compartment is provided with the conventional seat 11 mounted behind the steering wheel (not Patented Jan. 25, 1955 2 shown) and usually located on the left side of the compartment. I preferably use a seat of known construction in which the seat and back are pivoted, as at 12 for forward swinging movement, and in which the seat 13 again is pivoted, as at 14, whereby the entire seat may be swung out of the way to leave a clear aisle in front of the bulkhead. The storage compartment, which is much larger than the driver's cab, is arranged conveniently to accommodate a large number of rectangular cases in stacked and aligned order. The floor of the front compartment is relatively low and may be substantially on a level with the axes of the wheels. This makes it easy for the driver to step in and out. The floor in the storage compartment is considerably higher, as indicated by 3', and may be substantially on a level with the upper rims of the wheels, as shown in Figure 2. Over the wheels, wheel boxes 15 are provided, and these wheel boxes are of a width substantially commensurate with the length of the milk cases to be stored, while the space in between is approximately twice the width, so that two cases may be placed against one another endwise in this space. The cases may be stacked four high on the floor, and three high on the wheel spaces. Adjacent the bulkhead, which, except for the door opening hereinafter mentioned, forms a complete closure for the storage compartment, is provided a pit 16, the floor 3' of which is substantially on a level with the floor in the front compartment, except for the insulating layer 7', and is spaced from the roof of the truck body sufficiently to allow a person to stand erect in the pit for easy and convenient access to the milk containers in the storage compartment. While the driver's seat has been described as being disposed in the left portion of the driver's cab, the pit is preferably located adjacent the right wall, as shown in Figure 1. Adjacent the pit, the bulkhead 8 is formed with a door opening 17 adapted to be closed by means of a door 18 swingably mounted on hinges 19, and free to swing from the door opening toward the right side wall 4. The lower portion of the door swings in the pit, but the bulkhead is formed with a sill 20 underneath the door to provide a barrier for refrigerated air which might tend to escape along the bottom of the pit floor when the door is opened. The relative position of the driver's seat, the pit and the door make it possible for the driver to reach the pit very simply by turning on the seat and stepping through the opened door into the pit for access to the storage compartment. The door is preferably operated by the mechanism illustrated in detail in Figures 3, 4 and 5, and comprising in its principal features, a bracket 21 secured upon the door near the upper edge thereof and a bell crank lever 22 pivoted to the bulkhead immediately above the door opening, and suction means 23 operating the bell crank lever. The bracket 21 serves as supporting means, for a downwardly projecting pin 24, and the bell crank lever has an arm 25 swingable into the door opening, and slotted, as at 26, to receive the pin 24. The other arm 27 of the bell crank lever is operated by a connecting rod 28 at the end of a piston (not shown) slidable in a cylinder 29 and operated by suction from the tank 30 through a valve mechanism generally indicated at 31, which is adapted to divert the suction to one end of the cylinder 29, or the other for effecting door opening and closing movements. The valve is preferably of the magnetic type and operated by an electrical circuit including switches 32 disposed in opposite side walls of the cab, so as to be readily available for immediate control by the driver. Thus the driver may readily open or close the door 18 by pressing one switch or the other, at either side of the cab. In operation, the driver upon coming to a stop, may open the door by pressing on the proper switch, then turn around on his seat and step into the pit, where he can stand erect and reach the major portion of the cases before him.

3 Immediately upon grasping the desired milk containers, he will step through the door opening, press another of the switches 32 with his finger, or with an elbow if



both hands are filled, for closing the door, whereupon he may step outside the cab. for delivery of the milk. In a number of trucks built by me in accordance with the present invention, the storage compartment is arranged in such a manner that an operator standing in the pit 16 has about two-thirds of the entire load within reaching distance, so that it requires a minimum amount of rearranging to render all the cases available for taking out the full bottles and replacing the empty bottles. The truck may be refrigerated in any suitable manner, and, all the walls of the storage compartment should be suitably insulated. A cabinet 33 may be placed in the storage compartment adjacent the bulkhead for holding various other dairy products, such as cheese, butter and cream usually sold with milk. While the features of my invention have been particularly described in connection with a refrigerated truck, it is apparent that they may be incorporated in any other delivery truck. I claim: 1. A refrigerated truck body comprising a floor, spaced side walls and a rear wall rising from the floor and a roof resting on the walls, a bulkhead extending transversely across the body and dividing the same into a driver's compartment and a storage compartment, and a driver's seat in the driver's compartment adjacent one of the side walls, the floor of the storage compartment being generally higher than that of the driver's compartment and having a pit adjacent the bulkhead and the other side wall, the bulkhead having a door opening adjacent the pit and having a door for the opening swingable over the pit and toward the second wall and into a position adjacent thereto, and the pit having a floor substantially on a level with the floor of the driver's compartment and spaced from the roof of the body to allow a truck driver to stand upright therein for convenient access to cases stored in the storage compartment. 2. A refrigerated truck body comprising a floor, spaced side walls and a rear wall rising from the floor and a roof resting on the walls, a bulkhead extending transversely across the body and dividing the same into a driver's compartment, and a storage compartment, and a driver's seat in the driver's compartment adjacent one of the side walls, the floor of the storage compartment being generally higher than that of the driver's compartment and having a pit adjacent the bulkhead and the other side wall, the bulkhead having a door opening adjacent the pit and having a door for the opening swingable over the pit and toward the second wall and into a position adjacent thereto, and the pit having a floor substantially on a level with the floor of the driver's compartment and spaced from the roof of the body to allow a truck driver to stand upright therein for convenient access to cases stored in the storage compartment, and the bulkhead having a raised sill for the door opening to form a barrier for refrigerated air when the door is opened. 3. A refrigerated truck body comprising a floor, spaced side walls and a rear wall rising from the floor and a roof resting on the walls, a bulkhead extending transversely across the body and dividing the same into a driver's compartment and a storage compartment, and a driver's seat in the driver's compartment adjacent one of the side walls, the floor of the storage compartment being generally higher than that of the driver's compartment and having a pit adjacent the bulkhead and the other side wall, the bulkhead having a door opening adjacent the pit and having a door for the opening swingable over the pit and toward the second wall and into a position adjacent thereto, and the pit having a floor substantially on a level with the floor of the driver's compartment and spaced from the roof of the body to allow a truck driver to stand upright therein for convenient access to cases stored in the storage compartment, and the door having power-operated means controllable from within the driver's compartment for opening and closing the same. 4. A refrigerated truck body comprising a floor, spaced side walls and a rear wall rising from the floor and a roof resting on the walls, a bulkhead extending transversely across the body and dividing the same into a driver's compartment and a storage compartment, and a driver's seat in the driver's compartment adjacent one of the side walls, the floor of the storage compartment being generally higher than that of the driver's compartment and having a pit adjacent the bulkhead and the other side wall, the bulkhead having a door opening adjacent the pit and having a door for the opening swingable over the pit and toward the second wall, and the pit having a floor substantially on a level with the floor of the driver's compartment and spaced from the roof of the body to allow a truck driver to stand upright therein for convenient access to cases stored in the storage compartment, a bracket fixed upon the roof and having a vertical pin, a bell crank lever fixed to the bulkhead immediately above the door opening and having one arm swingable within the door opening, with a slot in the

arm engaging over the pin, and power means operative on the other arm for swinging the first arm for door opening and closing movements. 5. A refrigerated truck body comprising a floor, spaced side wall and a rear wall rising from the floor and a roof resting on the walls, a bulkhead extending transversely across the body and dividing the same into a driver's compartment and a storage compartment, and a driver's seat in the driver's compartment adjacent one of the side walls, the floor of the storage compartment being generally higher than that of the driver's compartment and having a pit adjacent the bulkhead and the other side wall, the bulkhead having a door opening adjacent the pit and a door for the opening swingable over the pit and toward the second wall, and the pit having a floor substantially on a level with the floor of the driver's compartment and spaced from the roof of the body to allow a truck driver to stand upright therein for convenient access to cases stored in the storage compartment, a bracket fixed upon the door and having a vertical pin, a bell crank lever fixed to the bulkhead immediately above the door opening and having one arm swingable within the door opening, with a slot in the arm engaging over the pin and power means operative on the other arm for swinging the first arm for door opening and closing movements, the power means including a magnetic control valve, an electric circuit for the same, and switches in the circuit disposed within the driver's compartment. 6. A refrigerated truck body comprising a floor, spaced side wall and a rear wall rising from the floor and a roof resting on the said walls, a bulkhead extending transversely across the body and dividing the same into a driver's compartment and a storage compartment, the floor of the storage compartment being generally higher than that of the driver's compartment and having a pit adjacent the bulkhead, the bulkhead having a door opening adjacent the pit and having a door for the opening and swingable over the pit, and the pit having a floor on a level with the floor of the driver's compartment and substantially lower than the floor of the storage compartment and spaced from the roof to allow the truck driver to stand upright therein for convenient access to cases stored in the storage compartment. References Cited in the file of this patent UNITED STATES PATENTS 733,176 Evans ----- July 7, 1903 2,098,357 Piroumoff ----- Nov. 9, 1937 2,125,205 Snowden ----- July 26, 1939 2,194,782 Baade ----- Mar. 26, 1940 2,574,585 Nielsen ----- Nov. 13, 1951

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMMC	Draw Des
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## ☐ 20. Document ID: US 2599029 A

L6: Entry 20 of 22

File: USOC

Jun 3, 1952

US-PAT-NO: 2599029

DOCUMENT-IDENTIFIER: US 2599029 A

TITLE: Electric heater

DATE-ISSUED: June 3, 1952

US-CL-CURRENT: 392/423; 362/293, 392/425, 392/430

DOCUMENT TEXT:

June 3, 1952 C. H. TURNER ET AL 2,599,029 ELECTRIC HEATER Filed Aug. 8, 1949 n, INVENTORS C'hales -ff 7Lr--neP BY ,Vly

Patented June 3, 1952 29599,029 UNITED STATES PATENT OFFICE 2,599,029 ELECTRIC HEATER Charles H. Turner, San Francisco, and Karl E. Koefoed, Aptos, Calif. Application August 8, 1949, Serial No. 109,148 4 Claims. (Cl. 219-34) 2 The present invention relates to improvements in electric heaters, and its principal object is to provide a heater of the character described that is convenient, economic and efficient in use And may be employed for long periods of time with safety and at low cost. It is further proposed to provide a heater of the character described tho't is adapted for at- tachment to any convenient support such as a wall surface and may be sv'ung

through a large 10 angle so as to direct the rays of heat either up- wardly or horizontally or downwardly, or in sub- stantially any direction desired. It is further proposed to -use a heater of the 15 character described employing a low temperature heating element the rays of which are substan- tially confined to the infra-red range of the spee- triim. It is a further object of the invention to provide a heater in which the heating element is 20 well ventilated to provide for efficient heat ex- change and is well insulated from its support so as to eliminate all danger of over-heating, the latter. 2 And, finally it is contemplated in the present 5 invention to use a non-metallic, hollow open- ended resistor tube, the material and resistance of the tube being related to the voltage across the tube so as to cause the latter to emit rays sub- stantially confined to the infra-red range of the 30 spectrum, the said tube being mounted in a para- bolic reflector adapted to reflect the rays in sub- stantially parallel relation. Further objects and advantages of o-ur inven- tion will appear as the specification proceeds, and 35 the novel features of our invention will be fully deflned in the clairns attached hereto. The preferred form of our invention is illus- trated in the accompanying drawing, in which Mgure 1 shows an end of our electric heater, 40 Figure 2, a front view of the same, and Mgure 3, a section taken along line 3-3 of Figure 2. While we have shown only the preferred form of our invention, we wish to have it understood 45 that various changes and modifications iray be made within the scope of the claims attached hereto without departing from the spirit of the invention. @Referring to the drawing in detail, our electric 50 heater is supported between two semi-circular end pieces I which latter again are supported with freedom of swinging movement in substan- tially triangular brackets 2 having lateral flang-es 3 provided with circular holes 4 terminating in, 55 vertical slots 5 by means of which the brackets may be suspended from a wall surface having suitable nails or screws secured therein' The end pieces are pivoted in the extremities of the triangular brackets as at 6, the pivots engaging the end pieces near the peripheries thereof as shown particularly clear in Figure 1 so as to allow of swinging movement of the end pieces through an arc approaching 180° as will clearly appear from the drawing. A semi-cylindrical housing 7 is mounted between the end pieces so as to register with the outline thereof, the housing being secured in place by means of screws 8 threaded into semicylindrical flanges 9 projecting from the inner faces of the end pieces near the peripheries thereof. The housing may be made of any suitable metal or other material and the upper and lower edges of the housing are rolled as at 10 to provide reinforcing beads and to provide an attractive appearance. An elongated reflector 11 is mounted between the end pieces inside of the housing, the reflector being made in the form of a true parabola and being secured between the end pieces by means of screws 12 threaded into flanges 13 projecting from the inner faces of the end pieces. The upper and lower edges of the reflector are preferably curled upon themselves as at 14 to provide reinforcing beads intended to also give an attractive appearance to the heater. The reflector and the housing cooperate in forming an insulating chamber 15, which due to the differences in shape between the parabolic reflector and the cylindrical housing tends to increase in thickness from the upper and lower edges of the heater toward the central plane. A resistor tube 16 is mounted inside of the reflector, with its axis located preferably in the focus of the latter. The ends of the resistor tube are mounted in clamps 17 secured upon the rear wall of the reflector as shown in Figure 3 and adapted for connection into a siuitable- electrical circuit. The tube is non-metallic, hollow and open at both ends, and the material and resistance of the tube are related to the voltage across the tube in such a manner as to cause the latter to emit rays substantially confined to the infrared range of the spectrum. The tube may be made of any suitable. material adapted for the purpose, and is intended for connection into a conventional house cir-

--,599,029 3 cuitt of approximately 110 volts and should have a resistance of approximately 21 ohms, While different materials may be available for this tube we preferably use 9, resistor formed principally of silicon carbide with a binder and other ingredients. One material particularly available for this purpose is a product of the Carborundum Company known as CX carborundum tube, the length of tl-ie tube being ai)proximately 18 inches, the wall thickness I/ath of an inch, the outside diameter approximately I inch and the resisitance slightly more than I ohm per inch. A resistor tube of these specifications, when connected into a house circuit of



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bbck slightly 50 with respect:to the formet boads, a resistbr tube supported iii the  
reflector with its axi8 substan- tially in the focils of the reflector, means for  
con- necting opposite ends of th@a tube into an 6lectrid circuit f(>r heating the  
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Adjacent the Ond pii@ces and sh@),ped for anchoring between the beads@ 4. An electric  
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2,599,029 5 6 of the heater In forwardly spaced relation with FOREIGN PATENTS respect  
to the heating tube. CHARLES I-1. TURNER. Nu mber Country Dat e KARL E. KOEFOED. 43,1  
33 Netherlands ----- May 16,1938 5 188,439 Gre at Britain ----- Nov. 16, 1922  
REFERENCES CITED 485, 104 Great Britain ----- May 13,1938 The following references  
are of record in the 572, 911i Great Britain ----- Oct. 29, 1945 file of this  
patent: 592, 724 Great Britain ----- Sept.26,1947 UNITED STATES PATENTS 609, 350  
Great Britain ----- Sept.29,1948 10 Number Name Date 1,389,397 Tactikos -----  
Aug. 30, 1921 2,260,803 Dewar ----- Oct. 28, 1941

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Drawn Des
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## ☐ 21. Document ID: US 2079939 A

L6: Entry 21 of 22

File: USOC

May 11, 1937

US-PAT-NO: 2079939

DOCUMENT-IDENTIFIER: US 2079939 A

TITLE: Disappearing bed

DATE-ISSUED: May 11, 1937

US-CL-CURRENT: 5/171; 5/133

DOCUMENT TEXT:

May 11, 1937. L-KOEFOED DISAPPEARING BED Filed Nov. 21, 1934 2 Sheets-Sheet 1 f7 !  
NVet4tOR 2,079,939 ATTORNEY

May II, 193 7. L- KOEFOED 2,079,939 DISAPPEAR ING BED Filed Nov. 21, 1934 2 Sheets-  
Sheet 2 Z6. Z. L/ . /"Zo. ----- 14. - ----- INVENTOR BY ATTORNEY

Patented May 11, 1937 2@0799939@ UNITED STATES PATENT OFFICE 21079,gsg DISAPPEARING  
BED Louis Koefoed, East Rockaway, N. Y. Application Noveinber 21, 1934, Serial No.  
754,053 2 Claims. (Cl. 5-171) This invention relates to disaPdearing beds,  
particularly to the type of bed which is secured to the back of a closet door, and  
has for its object to simplify the construction, mounting and operation of such beds.  
A relatec .1 object of the invention is to provide improved means for supporting a  
standard bed on the back of a closet door without weakening the door or encroaching  
upon the storag-e space 40 in the closet while at the same time permitting the bed to  
swing freely with the door and to be lowered to the floor with minimum effort when  
the door is open. As a result of these and various other features and advantages of

my door bed, especially its simplicity of construction and operation and its low cost of production as compared with other door beds which are expensive because requiring a special construction of bed and closet, and most of which are furthermore objectionable because they monopolize most or all of the available closet space, my construction is particularly well suited to present day low cost housing developments where economy of space and expenditure are of great importance and where it is essential to provide sleeping accommodations in rooms not designated as bed rooms. The invention will be described in connection with a preferred embodiment which is shown in the accompanying drawings, wherein: Fig. 1 is a vertical sectional view showing the bed folded against the closet door to which it is secured; Fig. 2 is a front elevation with the door wide open; Fig. 3 is a similar view with the bed lowered ready for use; Fig. 4 is a plan view with the bed folded against the door as in Fig. 2; Fig. 5 is a side elevation with the bed lowered as in Fig. 3; Fig. 6 is a plan view thereof; and Fig. 7 is an enlarged fragmentary perspective view showing the cooperating locking mechanism 45 on the bed and door. The rectangular bed frame illustrated in the drawings is of standard construction, comprising a pair of longitudinal stretcher tubes 1 terminating in housing brackets 2 which are riveted 50 or otherwise secured to perpendicular angle irons 3 constituting the upper and lower ends of the frame. The support for the mattress comprises a wire network 4 reinforced with light steel flats 5 which are secured to the angles 3 by means of coil springs 6. According to my invention a standard size bed frame of this type, 2'-6" wide and 61-011 long, can be installed on a 2'-10"x 61-8" door. If the door is only 21-611 wide the width of the bed frame should be reduced to 2'-2" by eliminating the portions of the angle irons 3 which project beyond brackets 2, while on doors wider than 2'-10" the length of the angle irons can be increased and the bed made wider without otherwise changing its construction, the width of the bed frame in all cases preferably being four inches less than the width of the door. The head of the bed is secured to the door 7 by means of a broad plate or bracket 8 of steel 15 or other suitable material which is permanently fastened to the base or bottom rail of the door and has end portions 9 bent at right-angles thereto as shown in Fig. 6. These end portions 9 of the bracket are spaced apart a distance slightly greater than the overall width of the bed frame so as to accommodate the head of said frame between them. The bed frame is pivoted to the bracket 8 by means of rod 10 which passes through the stretcher tubes 1 and the end portions 9 of the bracket and is secured in place by nuts and cooperating internally threaded stub tubes 12 or other suitable retaining means. This bracket forms the actual support for the bedstead and when securely fastened to the bottom rail and the lower ends of the door stiles adjacent the hinged side of the door will act as a cantilever beam, transferring the entire weight of the bedstead to the door hinges and at the same time reinforcing the door and preventing it from sagging. In order to counterbalance the bed and thereby enable it to be raised and lowered gently, a plurality of double linked coil springs 13 are connected at one end to the angle iron 3 at the head of the bed adjacent the door, preferably being engaged in holes which are drilled in the angle iron for this purpose, and at the other end to eyebolts 14 or other suitable retaining means adjacent the lower edge of the bracket 8. The number of coil springs 13, as well as their tension, is determined by the weight of the bed. The stretcher tubes 1 are drilled adjacent the foot of the bed to receive a rod 15 which is similar to the rod 10 and is pivotally secured to the stretcher tubes in a similar manner, the purpose of rod 15 being to provide a pivot for the legs at the foot of the bed. The legs comprise a pair of tubes 16 which are pivoted on rod 15 and are connected by bracing rods 17 as shown in Fig. 5.

2,079,939 Figs. 3, 5 and 7. The rectangular frame formed by the legs 16 and rods 17 is so balanced that the legs will descend by gravity when the bed is lowered and will fold up parallel with the bed spring when the bed is raised against the door. The lower ends of leg 16 may be provided with casters 18 of rubber or other suitable material as shown in Figs. 3 and 5. Plates or guards 19 are secured to the respective angle irons 3 at the head and foot of the bed and project several inches above the bed spring to act as a support for the mattress 20 and prevent same from shifting its position when the bed is raised or lowered. The locking mechanism for securing the bed in its vertical position comprises a spring plunger catch 22 which is secured to the angle iron 3 at the foot of the bed and is operated by chain 23; a stop member 24

secured to the door and having a recess in its outer end adapted to engage the 20 spring plunger 25 of catch 22 which extends through the adjacent angle iron 3 and guard 19; and a strike plate 20 suitably recessed for the passage of said stop member 24 and plunger 25. In operating the bed the mattress is tied down 25 at the foot of the bed frame and the pillow and bedclothes are tucked in so that they will remain in place when the bed is raised and lowered. Assuming the bed to be concealed within the closet, the door 7 is first opened and locked by engaging 40 the bolt of door stop 27 with the floor. Plunger 25 of catch 22 is then released by pulling on the chain 23 and the bed is lowered toward the floor. The linked coil springs 13 function before the weight of the descending bed increases appreciably and the bed descends gently until the legs 16, adjusting themselves by gravity, meet the floor in a vertical position. By reversing this operation the bed is returned to the closet with the under side of the mattress flush with the partition surface in front of the closet and with only the stretcher tubes 1 projecting, thereby avoiding all interference with the hanging space of the closet as shown in Fig. 1. Various changes may be made in the details of construction and mode of operation described above without departing from the scope and spirit of the invention as defined in the appended claims. The invention claimed is:

1. A support for a disappearing bed of the type adapted to be mounted upon a hinged door having a bottom rail and stiles adjacent to said rail at their lower ends; said support being characterized by a flat plate substantially coextensive with the bottom rail, secured thereto and extending therealong and over the lower ends of the stiles of said door and having spaced integral end portions perpendicular to the plane thereof, and a bed frame having one end pivotally supported by said plate on said end portions permitting said bed frame to be raised parallel to said door.
2. A support for a disappearing bed of the type adapted to be mounted upon a hinged door having a bottom rail and stiles adjacent to said rail at their lower ends; said support being characterized by a flat plate substantially coextensive with the bottom rail, secured thereto and extending therealong and over the lower ends of the stiles of said door and having spaced integral end portions perpendicular to the plane thereof, a bed frame having one end pivotally supported by said plate on said end portions permitting said bed frame to be raised parallel to said door, and a spring secured to the lower portion of said plate and to the adjacent end of said bed frame for counter-balancing said bed frame.

LOUIS KOEFOED.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	Form	Draw	Des
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## ☐ 22. Document ID: US 1477541 A

L6: Entry 22 of 22

File: USOC

Dec 18, 1923

US-PAT-NO: 1477541

DOCUMENT-IDENTIFIER: US 1477541 A

TITLE: Motion-picture machine

DATE-ISSUED: December 18, 1923

US-CL-CURRENT: 352/62

DOCUMENT TEXT:

Dec. '18 c8 1923. 1,477,541 C. A. Cl. EN, 'qENT', @7: T AL MOTI ON PICTURE MACHINE  
 Filed Dec. 27, 1921- 2 Sheets-Sheet OD- kf) C lifloQI]13 Q a QIIV, a 0 E3 0013 13  
 C 1! Q a@ D n n

1923. I., 477, 481 A. CL=, MFNT ET AL MOTION PICTURE MACHINE Filed Dec. 24, 1922. 2  
 Sheets-Sheet 2 hT- (20) I I l o s s a-, ] -ITO o@o 0 @@13 -6-93 -I 6-r-I 13-12 0 -F,-  
 L, a\_ a a 0 0 0 D 13 LI El C:, Q M 12 i3 0 13 U C! LI

Patented Dec. 18, 1923. 1p477t541 UNITED STATES PATENT OFFICEO CLMENT A. CLEXENT AND

AXEL BOBS- ROEFOFD, OF HOUSTON, TF-3rAS; SAID BORS- ROEFOED ASSIGNOR TO SAID CLEXENT, TRUSTEE. XOTION-PICTURE MACHINF. Applioation Illed December K 1921. Serial No. 524,668. To all zvh.o7ii it iitay concent: Be it known that we, CIXMENT A. CLEMENT and AXEL Bors-KoEFOFD, citizens of the United States, i,esidinff at Houston, in the county of Ilai@ris and-State of Texas, liave invented certain new and useful lm-proi- ements in a Motion-Picture Machine, of whicli the following is a specification. This invention relates to new and useful 10 improvements in a motion picture ma- chine. One object of the invention is to provide a machine of the character describe(I iN,Iiereby im,,tges taken at optic angles niay be simultaneously projected on the screen 15 so as to give a relief e:ffect. Another object of the invention is to provide t moving picture machine so constructed that they - ,i,ill project pic,tures from films formed Nvith ima.ges arranged in pairs, the 2( images of the respective pairs being su.bst,-ntially similar but taken at optic angles to eacli other with the result that the projected pictures will h,-ive the appearance of solidity tlius - iviD(-, a relief effect. 25 Another obj@ect o'.f' the invention is to provide a novel type of filni with the images thereon arranged in pairs, the ima,"s of the respectii,e pairs being similar but takert at optic angles to eacli other. so A furtlier feature resides in the provision of an improved type of lens employed. With the above and other objects in view the inventioii has particular relation to certain novel features of construction, opera- 36 tion and arrangeii-ient of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein:- Fic,@ure I is -,i plan view of a picture tak- 40 Ing Machine sliowii partially in section. Figure 2 is a side view thereof. Figure 3 shows an elevation of a l,ens employed. Figtire 4 illustrate-s a shutter employed. Figure 5 illustrates a section of the film. Figures 6 and 7 show side and front views of a camera employed for taking the pictures in the formation of said film. Figure 8 shows a plan view of another 60 type of moving picture machine. Figure 9 shows a side elevation thereof partially in section. F re 10 shows a front view of the type I employed in this form of machine. of e Figtire 11 shows a sectional view thereof. Figure 12 sliows a type of shutter employed. Figure 13 shows side view of the lens and shutter in combination. Figure 14 shows a section of a @type of so filni employed in this form of machine and, 14'i,-ures 15 and 16 show vertical and horizontal section views of the picture taking machine employed in the formation of this type of filra. Referring now more particularly to the drawings, wherein like numerals of reference desi,-nate simil,,tr I)arts in each of the figures, the numeral I desigiiates a motion pic-ture caniera provided for the'purpose of To taling the pictures or in-iaages arranged on the film 3 in ptirs, as illustrated in Figure 5. The constrtiction of this picture takirig machine is well known but it is so con- structed that two similar images will be, T5 taken similtaltieoiiisly, but at an optic angle to eacli otlier-tliat is the film will be com- posed of images arranged in pairs each pair consisting of a ri-ht and left 'mar . ma\_ges of s,,tid pairs bei@g taken at aln - IC aligle 80 to each otber. The numeral 4 desi,-nates the lamp house of motion picture inicliiiiie,. The film travels, in the iisu,,tl way, in front of the condenser from one of the film spools 5 to the other 85 spool 6. The corresponding right and left imat-Ts are simiiltaneously projected onto the screen throiigh the objective lenses 7 and the stereoscopic lenses 8 and will give a, re- lief or stereoscopic eitect on the screen. go Shutters 9 are of conventional form, oper- ation and use. In the type of machine illustrated in Figures 8 and 9 the rigjit and left images a-re alternately arranged on the, filina 10, a- s 95 illustrated in Fio- tire 14. For the purpose of making these films a motion picture camera 11, is illiustrated in Figures 15 and 16, is employ@d whereby right and left views are taken simultaneously and at an optic angle 100 to each other. The movement of the film 10 is effected in the usual and well known man- ner to project the images in rapid succes- sion on the screen. The ima,ges are proj'ected throu,-,h the same objective lens 12 in very 105 rapid succession. A rapidly rotating disc objective lens versely arranged 14 and the right vely projecto(i ilt

through thes6 lenses onto t he screen thus gi;Xa relief, or stereoseopic effect. t we claim is 1. A motion picture machine. includiig a lamp house, a film arranged to mo- @,e iri front of the lamp house, and provi-cled with pairs of similar images taken at optic angles to each otlier, an objective lens arranfed in front of the film through which the fi ms of 10 the respective pairs are alternately pi-o3ected a rotating disc arranged in fio--qt of thc) objective lens and Drovided with revermly arranpd



stereose@Pi'c lenses throug@ which the respective images of the pairs are successively projected. is 2. In a motion picture machine a rotary member formed with a pair Gf reversely arranged stereoscopic lenses. In testimony whereof we have sio,,ned our names to this specification in the presence 20 of two subscribing witnesses. CLEMENT A. CLEMENT. AXEL BORS-KOEFOED. Witnesses: W. H ' DUNLAY, E. V. HARDWAY.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Drawl Des
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☐ 1. Document ID: US 20040191264 A1

Using default format because multiple data bases are involved.

L20: Entry 1 of 8

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/184.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc
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☐ 2. Document ID: US 20040141958 A1

L20: Entry 2 of 8

File: PGPB

Jul 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040141958

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040141958 A1

TITLE: Novel methods for therapeutic vaccination

PUBLICATION-DATE: July 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Steinaa, Lucilla	Copenhagen V		DK	
Mouritsen, Soren	Birkerod		DK	
Gautam, Anand	Hillerod		DK	
Haaning, Jesper	Birkerod		DK	
Dalum, Iben	Horsholm		DK	
Birk, Peter	Copenhagen O		DK	
Leach, Dana	Hillerod		DK	
Nielsen, Klaus Gregorius	Sorborg		DK	
Karlsson, Gunilla	Copenhagen O		DK	

## ABSTRACT:

A method is disclosed for inducing cell-mediated immunity against cellular antigens. More specifically, the invention provides for a method for inducing cytotoxic T-lymphocyte immunity against weak antigens, notably self-proteins. The method entails that antigen presenting cells are induced to present at least one CTL epitope of the weak antigen and at the same time presenting at least one foreign T-helper lymphocyte epitope. In a preferred embodiment, the antigen is a cancer specific antigen, e.g. PSM, Her2, or FGF8b. The method can be exercised by using traditional polypeptide vaccination, but also by using live attenuated vaccines or nucleic acid vaccination. The invention furthermore provides immunogenic analogues of PSM, Her2 and FGF8b, as well as nucleic acid molecules encoding these analogues. Also vectors and transformed cells are disclosed. The invention also provides for a method for identification of immunogenic analogues of weak or non-immunogenic antigens.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMIC	Draw Des
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☐ 3. Document ID: US 20030157117 A1

L20: Entry 3 of 8

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

## ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

☐ 4. Document ID: US 20030086938 A1

L20: Entry 4 of 8

File: PGPB

May 8, 2003

PGPUB-DOCUMENT-NUMBER: 20030086938  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030086938 A1

TITLE: Novel methods for down-regulation of amyloid

PUBLICATION-DATE: May 8, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Jensen, Martin Roland	Horsholm		DK	
Birk, Peter	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	

US-CL-CURRENT: 424/185.1

ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloidogenic proteins (proteins contributing to formation of amyloid) such as beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous amyloidogenic polypeptides, said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes while substantially preserving the majority of A.beta.'s B-cell epitopes. Also disclosed are nucleic acid vaccination against amyloidogenic polypeptides and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for identification of useful immunogenic analogues of the amyloidogenic proteins, methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

☐ 5. Document ID: US 20020187157 A1

L20: Entry 5 of 8

File: PGPB

Dec 12, 2002

PGPUB-DOCUMENT-NUMBER: 20020187157  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020187157 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: December 12, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Jensen, Martin Roland	Holte		DK	
Rasmussen, Peter Birk	Frederiksberg		DK	
Nielsen, Klaus Gregorius	Soborg		DK	

US-CL-CURRENT: 424/185.1; 424/85.1, 424/85.2

## ABSTRACT:

A method for in vivo down-regulation of amyloid protein in an animal, including a human being, the method comprising effecting presentation to the animal's immune system of an immunogenically effective amount of at least one amyloidogenic polypeptide or subsequence thereof which has been formulated so that immunization of the animal with the amyloidgenic polypeptide or subsequence thereof induces production of antibodies against the amyloidogenic polypeptide, and/or at least one analogue of the amyloidogenic polypeptide wherein is introduced at least one modification in the amino acid sequence of the amyloidogenic polypeptide which has as a result the immunization of the animal with the analogue induces production of antibodies against the amyloidogenic polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw. Des
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☐ 6. Document ID: US 20020119162 A1

L20: Entry 6 of 8

File: PGPB

Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119162

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/185.1

## ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.

☐ 7. Document ID: WO 3015812 A2

L20: Entry 7 of 8

File: EPAB

Feb 27, 2003

PUB-NO: WO003015812A2

DOCUMENT-IDENTIFIER: WO 3015812 A2

TITLE: NOVEL METHOD FOR DOWN-REGULATION OF AMYLOID

PUBN-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME	COUNTRY
RASMUSSEN, PETER BIRK	DK
JENSEN, MARTIN ROLAND	DK
NIELSEN, KLAUS GREGORIUS	DK
KOEFOED, PETER	DK
DEGAN, FLORENCE DAL	DZ

INT-CL (IPC): A61 K 39/00; A61 K 39/385; C07 K 14/47; A61 P 25/28

EUR-CL (EPC): A61K039/00

ABSTRACT:

CHG DATE=20040413 STATUS=O>Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A beta ). Immunization is preferably effected by administration of analogues of autologous APP or A beta , said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A beta which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A beta and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

☐ 8. Document ID: WO 2066056 A2

L20: Entry 8 of 8

File: EPAB

Aug 29, 2002

PUB-NO: WO002066056A2

DOCUMENT-IDENTIFIER: WO 2066056 A2

TITLE: SYNTHETIC VACCINE AGENTS

PUBN-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	COUNTRY
------	---------

NIELSEN, KLAUS GREGORIUS  
KOEFOED, PETER

DK  
DK

INT-CL (IPC): A61 K 39/385  
EUR-CL (EPC): A61K039/00; A61K039/385

ABSTRACT:

CHG DATE=20040508 STATUS=O>The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tressyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunisation and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	HTML	Draw Desc
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Terms	Documents
Nielsen-Klaus-Gregorius.IN.	8

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# Hit List

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Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: KR 2004044465 A, WO 2003015812 A2, US 20030157117 A1, EP 1420815 A2, AU 2002325199 A1, BR 200212047 A

Using default format because multiple data bases are involved.

L22: Entry 1 of 7

File: DWPI

May 28, 2004

DERWENT-ACC-NO: 2003-312718

DERWENT-WEEK: 200463

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TITLE: Novel analog of amyloid precursor protein or beta amyloid for treating Alzheimer's disease, has amyloid precursor protein/beta amyloid incorporating B-cell epitope of amyloid protein and foreign T-helper epitope

INVENTOR: DAL DEGAN, F; JENSEN, M R ; KOEFOED, P ; NIELSEN, K G ; RASMUSSEN, P B ; DEGAN, F D

PRIORITY-DATA: 2002US-373027P (April 16, 2002), 2001DK-0001231 (August 20, 2001), 2001US-337543P (October 22, 2001), 2002DK-0000558 (April 16, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>KR 2004044465 A</u>	May 28, 2004		000	A61K039/385
<u>WO 2003015812 A2</u>	February 27, 2003	E	122	A61K039/00
<u>US 20030157117 A1</u>	August 21, 2003		000	A61K039/00
<u>EP 1420815 A2</u>	May 26, 2004	E	000	A61K039/00
<u>AU 2002325199 A1</u>	March 3, 2003		000	A61K039/00
<u>BR 200212047 A</u>	August 17, 2004		000	A61K039/00

INT-CL (IPC): A61 K 39/00; A61 K 39/385; A61 P 25/28; C07 K 14/47; C12 N 9/64

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	Publ	Draw Des
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☐ 2. Document ID: US 20040191264 A1, WO 200266056 A2, US 20020119162 A1, US 20020187157 A1, EP 1363664 A2, AU 2002233166 A1, JP 2004529881 W

L22: Entry 2 of 7

File: DWPI

Sep 30, 2004

DERWENT-ACC-NO: 2002-706932

DERWENT-WEEK: 200465

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TITLE: Novel immunogen useful for immunizing an animal, has an activated polyhydroxypolymer backbone to which is attached an antigenic determinant including a B cell epitope and another determinant including a T-helper epitope

INVENTOR: KOEFOED, P; NIELSEN, K G ; JENSEN, M R ; RASMUSSEN, P B



PRIORITY-DATA: 2001US-337543P (October 22, 2001), 2001WO-DK00113 (February 19, 2001), 2001US-0785215 (February 20, 2001), 2001DK-0001231 (August 20, 2001), 2000DK-0000265 (February 21, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20040191264 A1	September 30, 2004		000	A61K039/00
WO 200266056 A2	August 29, 2002	E	052	A61K039/385
US 20020119162 A1	August 29, 2002		000	A61K039/00
US 20020187157 A1	December 12, 2002		000	A61K039/00
EP 1363664 A2	November 26, 2003	E	000	A61K039/385
AU 2002233166 A1	September 4, 2002		000	A61K039/385
JP 2004529881 W	September 30, 2004		083	A61K039/385

INT-CL (IPC): A61 K 38/19; A61 K 38/20; A61 K 39/00; A61 K 39/38; A61 K 39/385; A61 K 47/48; A61 P 37/04; A61 P 43/00

ABSTRACTED-PUB-NO: WO 200266056A

BASIC-ABSTRACT:

NOVELTY - An immunogen (I) comprising at least one first antigenic determinant that includes at least one B-cell epitope and/or at least one cytotoxic T lymphocyte (CTL) epitope, and at least one second antigenic determinant that includes a T helper cell epitope (TH epitope), where each of the first and second antigenic determinants are coupled to an activated polyhydroxypolymer carrier, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an immunogenic composition (II) for raising an immune response against an antigen in a mammal, including a human, comprising (I), and optionally an adjuvant.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.

Test details are described, but no results are given.

USE - (I) or (II) contained in a virtual lymph node (VLN) device is useful for immunizing an animal, including a human, against an antigen of choice, where the antigen shares the at least one first antigenic determinant with the immuogen (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Drawing Des.
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☐ 3. Document ID: US 20030169546 A1, WO 200182439 A1, DK 200000750 A, AU 200152110 A, EP 1290768 A1

L22: Entry 3 of 7

File: DWPI

Sep 11, 2003

DERWENT-ACC-NO: 2002-205747

DERWENT-WEEK: 200367

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TITLE: Electric distribution circuit supply and protection system with two monitoring circuits detecting error state

INVENTOR: LINDEMANN, S; NIELSEN, K G; NIELSEN, G K

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030169546 A1	September 11, 2003		000	H02H009/00
WO 200182439 A1	November 1, 2001	E	017	H02H003/02
DK 200000750 A	October 28, 2001		000	H02H003/20
AU 200152110 A	November 7, 2001		000	H02H003/02
EP 1290768 A1	March 12, 2003	E	000	H02H003/02

INT-CL (IPC): H02 H 3/02; H02 H 3/20; H02 H 9/00

ABSTRACTED-PUB-NO: WO 200182439A

BASIC-ABSTRACT:

NOVELTY - The supply circuit is formed with at least two independent monitoring circuits performing independent measurements of an error state on the basis of common threshold value generated from the value determined in the circuit. Recording of an error state in the monitoring circuit results in activation of at least one independent current path between the supply potential of the supply circuit and the associated reference value. The electric circuit increases the current through a separator circuit isolating the distribution circuit from the remaining network. The same reference value may be used for several monitoring circuits where the component tolerances are compensated.

USE - For fire protection of electric distribution apparatus.

ADVANTAGE - Protection reliability is increased.

DESCRIPTION OF DRAWING(S) - Drawing shows a block diagram of electronic protection circuit.

Triple protection circuit 201,202,203

Electronic switch 204,205,206

Feedback controlled circuit 208

Reference circuit. 207

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 4. Document ID: MX 2002007796 A1, WO 200162284 A2, AU 200133620 A, NO 200203961 A, EP 1259251 A2, BR 200108566 A, KR 2003001365 A, US 20030086938 A1, HU 200300067 A2, CN 1416350 A, JP 2003523402 W, NZ 521442 A, ZA 200204830 A, SK 200201178 A3, CZ 200202748 A3

L22: Entry 4 of 7

File: DWPI

Jan 1, 2004

DERWENT-ACC-NO: 2001-589796

DERWENT-WEEK: 200471

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TITLE: In vivo down-regulation of amyloid protein for the treatment of Alzheimer's, comprises presenting an amyloidogenic polypeptide or its subsequence and/or at least one analogue of the amyloidogenic polypeptide to the immune system

INVENTOR: BIRK, P; JENSEN, M R ; NIELSEN, K G

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>MX 2002007796 A1</u>	January 1, 2004		000	A61K039/395
<u>WO 200162284 A2</u>	August 30, 2001	E	120	A61K039/395
<u>AU 200133620 A</u>	September 3, 2001		000	A61K039/395
<u>NO 200203961 A</u>	August 20, 2002		000	A61K000/00
<u>EP 1259251 A2</u>	November 27, 2002	E	000	A61K038/17
<u>BR 200108566 A</u>	November 19, 2002		000	A61K039/395
<u>KR 2003001365 A</u>	January 6, 2003		000	A61K038/16
<u>US 20030086938 A1</u>	May 8, 2003		000	A61K039/00
<u>HU 200300067 A2</u>	May 28, 2003		000	A61K038/17
<u>CN 1416350 A</u>	May 7, 2003		000	A61K038/17
<u>JP 2003523402 W</u>	August 5, 2003		108	A61K039/00
<u>NZ 521442 A</u>	September 26, 2003		000	A61K039/395
<u>ZA 200204830 A</u>	November 26, 2003		141	A61K000/00
<u>SK 200201178 A3</u>	February 3, 2004		000	A61K039/395
<u>CZ 200202748 A3</u>	March 17, 2004		000	A61K038/17

200202748 A3 INT-CL (IPC): A61 K 0/00; A61 K 35/12; A61 K 35/66; A61 K 35/76; A61 K 38/00; A61 K 38/16; A61 K 38/17; A61 K 39/00; A61 K 39/39; A61 K 39/395; A61 K 48/00; A61 P 25/28; C07 K 14/435; C07 K 14/47; C07 K 19/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 5/10; C12 N 15/09; C12 P 21/02; G01 N 33/53

ABSTRACTED-PUB-NO: WO 200162284A  
BASIC-ABSTRACT:

NOVELTY - A method (M1) for in vivo down-regulation of amyloid protein in an animal, including a human, comprising presenting to the animal's immune system an immunogenically effective amount of at least one amyloidogenic polypeptide or its subsequence and/or at least one analogue of the amyloidogenic polypeptide, is new.

DETAILED DESCRIPTION - a method (M1) for in vivo down-regulation of amyloid protein in an animal, including a human, comprising presenting to the animal's immune system an immunogenically effective amount of at least one amyloidogenic polypeptide or its subsequence or at least one analogue of the amyloidogenic polypeptide, is new.

The amyloidogenic polypeptide or its subsequence has been formulated so that immunization of the animal with the amyloidogenic polypeptide or its subsequence induces production of antibodies against the amyloidogenic polypeptide. The analogue of the amyloidogenic polypeptide has at least one modification in the amino acid sequence. Immunization of the animal with the analogue induces production of antibodies against the amyloidogenic polypeptide.

INDEPENDENT CLAIMS are included for the following:

(1) a method (M2) for treating and/or preventing and/or ameliorating Alzheimer's disease or other diseases and conditions characterized by amyloid deposits, comprising down-regulating amyloid according to M1 to such an extent that the total amount of amyloid is decreased or that the rate of amyloid formation is reduced with clinical significance;

(2) an analogue (A1) of an amyloidogenic polypeptide which is derived from an animal amyloidogenic polypeptide where is introduced a modification which has as a result that immunization of the animal with the analogue induces production of antibodies against the amyloidogenic polypeptide;

(3) an immunogenic composition comprising:

(a) an immunogenically effective amount of an amyloidogenic polypeptide autologous in an animal, the amyloidogenic polypeptide being formulated together with an immunologically acceptable adjuvant so as to break the animal's autotolerance towards the amyloidogenic polypeptide, the composition further comprising a pharmaceutically and immunologically acceptable carrier and/or vehicle; or

(b) an effective amount of A1 the composition further comprising a pharmaceutically and immunologically acceptable carrier and/or vehicle and optionally an adjuvant;

(4) a nucleic acid fragment (N1) which encodes A1;

(5) a vector carrying N1 and capable of autonomous replication;

(6) a transformed cell carrying the vector of (5), such that the transformed cell is capable of replicating N1;

(7) a composition for inducing production of antibodies against an amyloidogenic polypeptide, comprising N1 or the vector of (5);

(8) a stable cell line which carries the vector of (5) and which expresses N1, and which optionally secretes or carries A1 on its surface;

(9) a method for the preparation of the cell of (6), comprising transforming a host cell with N1 or the vector of (6);

(10) a method (M3) for the identification of a modified amyloidogenic polypeptide which is capable of inducing antibodies against unmodified amyloidogenic polypeptide in an animal species where the unmodified amyloidogenic polypeptide is a self-protein; and

(11) a method (M4) for the preparation of an immunogenic composition comprising at least one modified amyloidogenic polypeptide which is capable of inducing antibodies against unmodified amyloidogenic polypeptide in an animal species where the unmodified amyloidogenic polypeptide is a self-protein.

ACTIVITY - Neuroprotective; Nootropic; Immunostimulant; Antidiabetic; Antiparkinsonian; Anticonvulsant.

MECHANISM OF ACTION - Amyloid-Protein-Antagonist; Vaccine; Gene-Therapy.

Mice transgenic for human APP (Alzheimer's precursor protein) were used for the study. These mice, called TgRND8+, express a mutated form of APP that results in high concentration of beta-amyloid-40 and beta-amyloid-42 in the mouse brains (Janus, C. et. al., Nature 408:979-982, (2000))

The mice (8-10 mice per group) were immunized with either beta-amyloid-42 (residues 673-714 of the 770 amino acid sequence defined in the specification, it is synthesized by standard Fmoc strategy) or the hAB43+-34 variant (produced recombinantly) four times at two week intervals. Doses were either 100 mg for beta-amyloid-42 or 50 mg for hAB43+34. Mice were bled at day 43 (after three injections) and after day 52 (after four injections) and the sera were used to determine the level of anti-beta-amyloid-42 specific titres using a direct beta-amyloid-42 ELISA.

The antibody titers obtained when immunizing with the hAB43+-34 beta-amyloid variant are approximately 4 times and 7.5 times higher after 3 and 4 immunizations, respectively, than the titers obtained when using the unaltered wild-type beta-amyloid-42 as an immunogen. This fact is put in perspective, when considering the fact that the amount of variant used for immunization was only 50% of the amount of wild-type sequence used for immunization.

USE - The amyloidogenic polypeptide or its subsequence, and its analogue is useful

for the preparation of an immunogenic composition comprising an adjuvant for down-regulating amyloid in an animal. They are also useful in the treatment, prophylaxis or amelioration of Alzheimer's disease or other diseases characterized by amyloid deposits (claimed). They are also useful in the treatment of systemic amyloidosis, maturity onset diabetes, Parkinson's disease, Huntington's disease, fronto-temporal dementia, and prion-related transmissible spongiform encephalopathies.

They are also useful for inducing production of antibodies against an amyloidogenic polypeptide.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Drawings
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☐ 5. Document ID: DE 69918146 E, WO 200020027 A2, AU 9958510 A, NO 200101586 A, EP 1117421 A2, CN 1323217 A, KR 2001085894 A, HU 200103976 A2, JP 2002526419 W, CZ 200101049 A3, AU 751709 B, ZA 200102603 A, SK 200100427 A3, NZ 511055 A, EP 1117421 B1, US 20040141958 A1

L22: Entry 5 of 7

File: DWPI

Jul 22, 2004

DERWENT-ACC-NO: 2000-349917

DERWENT-WEEK: 200450

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TITLE: Inducing immune responses to weakly immunogenic, tumor associated peptide antigens for the treatment of breast and prostate cancer

INVENTOR: DALUM, I; GAUTAM, A ; HAANING, J ; KARLSSON, G ; LEACH, D ; MOURITSEN, S ; NIELSEN, K G ; RASMUSSEN, P B ; STEINAA, L ; RASMUSSEN BIRK, P ; BIRK, P

PRIORITY-DATA: 1998US-105011P (October 20, 1998), 1998DK-0001261 (October 5, 1998), 1998DK-0000012 (October 5, 1998)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 69918146 E	July 22, 2004		000	A61K038/17
WO 200020027 A2	April 13, 2000	E	219	A61K039/00
AU 9958510 A	April 26, 2000		000	
NO 200101586 A	May 31, 2001		000	A61K000/00
EP 1117421 A2	July 25, 2001	E	000	A61K038/17
CN 1323217 A	November 21, 2001		000	A61K038/17
KR 2001085894 A	September 7, 2001		000	A61K039/00
HU 200103976 A2	February 28, 2002		000	A61K039/00
JP 2002526419 W	August 20, 2002		200	A61K039/00
CZ 200101049 A3	August 14, 2002		000	A61K039/00
AU 751709 B	August 22, 2002		000	A61K039/00
ZA 200102603 A	December 24, 2002		275	A61K000/00
SK 200100427 A3	February 4, 2003		000	A61K038/17
NZ 511055 A	October 31, 2003		000	A61K039/00
EP 1117421 B1	June 16, 2004	E	000	A61K038/17
US 20040141958 A1	July 22, 2004		000	A61K048/00

, US 20040141958 A1 INT-CL (IPC): A61 K 0/00; A61 K 38/17; A61 K 38/18; A61 K 39/00; A61 K 39/39; A61 K 48/00; A61 P 15/00; A61 P 35/00; C07 K 14/47; C07 K 14/50; C07 K 14/705; C07 K 14/71; C07 K 16/18; C12 N 5/16; C12 N 15/09; C12 N 15/12; C12 N 15/63

BASIC-ABSTRACT:

NOVELTY - A method (I) for inducing immune responses against weakly immunogenic cell-associated peptide antigens (PA) such as those associated with cancers (i.e. self-proteins) (e.g. human PSM (undefined), Her2 and/or fibroblast growth factor (FGF) 8b), is new.

DETAILED DESCRIPTION - A method (I) for inducing an immune responses against weakly immunogenic or non-immunogenic polypeptide antigens (PAs) in animals (including humans), comprising effecting simultaneous presentation by antigen producing cells (APCs) of the animals immune system of:

(1) at least 1 CTL (cytotoxic T-lymphocyte) group derived from the PA and/or at least 1 B-cell group derived from the cell-associated PA; and

(2) at least 1 first T helper cell group (TH1 group ) which is foreign to the animal.

INDEPENDENT CLAIMS are also included for the following:

(1) a method (II) for the selection of an immunogenic analog of a cell-associated PA that is weakly immunogenic or non-immunogenic which is capable of inducing an immune response in an animal against cell displaying MHC (major histocompatibility complex) Class I (MHC-I) molecules bound to group derived from the cell-associated PA, comprising:

(A) identifying a subsequence of the amino acid sequence of the cell-associated PA which does not contain known or predicted CTL groups;

(B) preparing at least 1 punitively immunogenic analogs of the PA by introducing at least 1 TH group foreign to the animal in a position within the subsequence identified in step (A); and

(C) selecting those analogs from step (B) which are verifiably capable of inducing a CTL response in the animal

(2) a method (III) for the preparation of a cell that produces analogs of cell-associated PAs, comprising introducing a nucleic acid encoding the analog into a vector and transforming a suitable host cell (III) with the vector;

(3) a method (IV) for preparing analogs of cell-associated PAs comprising culturing the transformed host cell (III) under conditions suitable for expression of the protein and recovering the PA analog from the culture;

(4) an analog (V) of human PSM (undefined) that is immunogenic in humans and comprises at least part of all known and predicted CTL and B-cell groups of PSM and includes at least 1 foreign TH group;

(5) an analog (VI) of Her2 that is immunogenic in humans and comprises at least part of all known and predicted CTL and B-cell groups of Her2 and includes at least 1 foreign TH group;

(6) an analog (VII) of human/murine FGF (fibroblast growth factor) 8b that is immunogenic in humans and comprises at least part of all known and predicted CTL and B-cell groups of FGF 8b and includes at least 1 foreign TH group;

(7) compositions comprising (V), (VI) and/or (VII) and an adjuvant;

(8) nucleic acids ((VIII)-(X)) encoding (V), (VI) and/or (VII);

(9) vectors ((XI)-(XIII)) comprising (VIII)-(X) (respectively);

(10) a transformed cell (XIV) comprising (XI)-(XIII);

(11) compositions for inducing production of antibodies against PSM, Her2 and FGF 8b, comprising (VIII)-(X) and/or (XI)-(XIII) and an adjuvant; and

(12) a method for the preparation of the cell (XIV), comprising transforming a host cell with (VIII)-(X) or (XI)-(XIII).

USE - (I) is used to stimulate immune responses to weakly, or non-immunogenic peptide antigens especially self proteins for the treatment of diseases associated with expression of those antigens. If the PA is human PSM (undefined), (I) is used for the treatment of prostate cancer. If the PA is human fibroblast growth factor (FGF) 8b, (I) is used for the treatment of prostate cancer or breast cancer. If the PA is Her2, (I) is used for the treatment of breast cancer (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Drawn Des
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☐ 6. Document ID: NZ 509917 A, WO 200005316 A1, AU 9948984 A, EP 1109871 A1, KR 2001072025 A, ZA 200100534 A, JP 2002521651 W, AU 759687 B

L22: Entry 6 of 7

File: DWPI

May 30, 2003

DERWENT-ACC-NO: 2000-182671

DERWENT-WEEK: 200341

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TITLE: Coating process for solid surfaces that are substantially free of amino, imino or thiol groups involves the application of a water-soluble activated polyhydroxy polymer

INVENTOR: NIELSEN, K G

PRIORITY-DATA: 1998US-094558P (July 29, 1998), 1998DK-0000963 (July 21, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>NZ 509917 A</u>	May 30, 2003		000	C09D201/08
<u>WO 200005316 A1</u>	February 3, 2000	E	045	C09D201/08
<u>AU 9948984 A</u>	February 14, 2000		000	C09D201/08
<u>EP 1109871 A1</u>	June 27, 2001	E	000	C09D201/08
<u>KR 2001072025 A</u>	July 31, 2001		000	C09D201/02
<u>ZA 200100534 A</u>	March 27, 2002		057	C09D000/00
<u>JP 2002521651 W</u>	July 16, 2002		050	G01N033/548
<u>AU 759687 B</u>	April 17, 2003		000	C09D201/08

INT-CL (IPC): A61 K 47/32; A61 K 47/36; A61 K 47/48; C08 J 7/04; C08 L 101:00; C09 D 0/00; C09 D 201/02; C09 D 201/08; G01 N 33/543; G01 N 33/548

ABSTRACTED-PUB-NO: WO 200005316A

BASIC-ABSTRACT:

NOVELTY - The coating of solid surfaces having substantially no amino, imino or thiol groups with a water-soluble activated polyhydroxy polymer is new.

DETAILED DESCRIPTION - A new method for coating a solid surface having substantially no amino, imino or thiol groups with a water-soluble activated polyhydroxy polymer comprises: (a) contacting the surface with an aqueous coating solution of activated

polyhydroxy polymer with a pH of 1.5-10 and/or with an ion strength of 0.1-8 to achieve bonding, (b) rinsing the coated surface with a rinse solution, and (c) optionally drying the surface.

An INDEPENDENT CLAIM is made for coated surfaces prepared by the above method.

USE - Coated surfaces are useful for immobilizing a wide variety of molecules including amino acids, 1-30 amino acid oligo-peptides, 1-30 amino acid polypeptides, proteins, immunoglobulins, haptens, enzymes, antibodies, antigens, polysaccharides, 1-20 nucleotide oligonucleotides, 1-20 nucleotide polynucleotides, other biomolecules, microorganisms, prokaryotic cells and, eukaryotic cells. The process is also useful for making, sheets, pellets, films, disks, plates, rings, rods, nets, filters, trays, and especially, beads, sticks, multibladed sticks or micro titer plates e.g. those made from polystyrene.

ADVANTAGE - The process is simple and requires no pretreatment of the solid surface.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw Des
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☐ 7. Document ID: AU 9455196 A, AU 665702 B

L22: Entry 7 of 7

File: DWPI

May 4, 1995

DERWENT-ACC-NO: 1995-194330

DERWENT-WEEK: 199609

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Compost toilet for domestic use - has waste conduit integrated into toilet pedestal with compost container located below for collection of faecal solids

INVENTOR: NIELSEN, K G ; NIELSEN, N

PRIORITY-DATA: 1993AU-0001860 (October 18, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>AU 9455196 A</u>	May 4, 1995		027	A47K011/00
<u>AU 665702 B</u>	January 11, 1996		000	A47K011/00

INT-CL (IPC): A47 K 11/00

ABSTRACTED-PUB-NO: AU 9455196A

BASIC-ABSTRACT:

The compost toilet includes a toilet pedestal that has a waste delivery conduit extending from it. A compost container is joined in fluid communication with the waste delivery conduit of the toilet pedestal and has an open top. A cover member for the compost container has an air exhaust conduit associated with it. A separating device is located in the compost container for separation of liquid material from solid material.

The toilet has an air exhaust conduit integral with the cover member. The separating device is a partition adapted to allow liquid material to pass through while retaining solid material.

USE/ADVANTAGE - Is simple in construction and is efficient in operation.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw Des
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Terms	Documents
Nielsen-K-G.IN.	7

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# Hit List

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Search Results - Record(s) 1 through 52 of 52 returned.

☐ 1. Document ID: US 20040213799 A1

Using default format because multiple data bases are involved.

L8: Entry 1 of 52

File: PGPB

Oct 28, 2004

PGPUB-DOCUMENT-NUMBER: 20040213799

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040213799 A1

TITLE: Methods and reagents for vaccination which generate a CD8 T cell immune response

PUBLICATION-DATE: October 28, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McMichael, Andrew	Beckley		GB	
Hill, Adrian V.S.	Old Headington		GB	
Gilbert, Sarah C.	Headington		GB	
Schneider, Jorg	Barton		GB	
Plebanski, Magdalena	Melbourne		AU	
Hanke, Tomas	Old Marston		GB	
Smith, Geoffrey L.	Oxford		GB	
Blanchard, Tom	Banjul		GM	

US-CL-CURRENT: 424/185.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 2. Document ID: US 20040202673 A1

L8: Entry 2 of 52

File: PGPB

Oct 14, 2004

PGPUB-DOCUMENT-NUMBER: 20040202673

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040202673 A1

TITLE: Constructs of branched synthetic peptide immunogens with artificial T helper cell epitopes coupled to B cell epitopes

PUBLICATION-DATE: October 14, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Huang, Jen-Pin	Taipei Hsien		TW	

## ABSTRACT:

The present invention relates to the construction of synthetic peptide immunogens to induce the production of antibodies specific to a designated B epitope, usually a self molecule. The peptide immunogens are synthesized in branched forms with artificial Th epitopes conjugated, directly or through a spacer, to a B epitope in a specific orientation. The novel peptide immunogens are designed to elicit high level of antibodies for immunotherapy or immunomodulation of the body regulatory processes.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw. Des.
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☐ 3. Document ID: US 20040191264 A1

L8: Entry 3 of 52

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/184.1

## ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tressyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunisation and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw. Des.
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☐ 4. Document ID: US 20040141993 A1

L8: Entry 4 of 52

File: PGPB

Jul 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040141993

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040141993 A1

TITLE: Synthetic peptide composition as immunogens for prevention of urinary tract infection

PUBLICATION-DATE: July 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Chang Yi	Cold Spring Harbor	NY	US	

US-CL-CURRENT: 424/185.1; 530/395

ABSTRACT:

The invention provides a peptide immunogen comprising a FAFSD target peptide or an analogue thereof, covalently linked to a helper T cell epitope and optionally to an invasin immunostimulatory domain. The present invention also provides for the use of such peptide immunogens to elicit the production in mammals of high titer polyclonal antibodies, which are specific to the FAFSD target peptide. The peptide immunogens are expected to be useful in evoking antibodies that prevent the adherence of E. coli and other enterobacteria to the mucosa for protection against urinary tract infection.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMIC	Draw. Desc.
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☐ 5. Document ID: US 20040141984 A1

L8: Entry 5 of 52

File: PGPB

Jul 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040141984

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040141984 A1

TITLE: Amyloid beta 1-6 antigen arrays

PUBLICATION-DATE: July 22, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bachmann, Martin F.	Seuzach		CH	
Tissot, Alain	Zurich		CH	
Ortmann, Rainer	Saint Louis		FR	
Luond, Rainer	Therwil		CH	
Staufenbiel, Matthias	Lorrach		DE	
Frey, Peter	Bern		CH	

US-CL-CURRENT: 424/184.1

ABSTRACT:

The present invention is related to the fields of molecular biology, virology, immunology and medicine. The invention provides a composition comprising an ordered and repetitive antigen or antigenic determinant array, and in particular an A.beta.1-

6 peptide-VLP-composition. More specifically, the invention provides a composition comprising a virus-like particle and at least one A.beta.1-6 peptide bound thereto. The invention also provides a process for producing the conjugates and the ordered and repetitive arrays, respectively. The compositions of the invention are useful in the production of vaccines for the treatment of Alzheimer's disease and as a pharmaccine to prevent or cure Alzheimer's disease and to efficiently induce immune responses, in particular antibody responses. Furthermore, the compositions of the invention are particularly useful to efficiently induce self-specific immune responses within the indicated context.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 6. Document ID: US 20040081658 A1

L8: Entry 6 of 52

File: PGPB

Apr 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040081658

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040081658 A1

TITLE: Long peptides of 22-45 amino acid residues that induce and/or enhance antigen specific immune responses

PUBLICATION-DATE: April 29, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Van Der Burg, Sjoerd Hendrikus	Waddinxveen		NL	
Ottenhorf, Tom H. M.	Oegstgeest		NL	
Geluk, Annemieke	Woubrugge		NL	
Schoenmaekers-Welters, Maria Johanna Philomena	Leiden		NL	
De Jong, Annemieke M.	Amsterdam		NL	
Offringa, Rienk	Leiden		NL	
Toes, Rene Everardus Maria	Leiden		NL	

US-CL-CURRENT: 424/185.1; 424/186.1, 424/190.1

ABSTRACT:

The invention is concerned with epitopes derived from human papilloma virus, and peptides having a size of about 22-45 amino acid residues comprising minimal T cell epitopes. The invention further provides clinically relevant approaches for immunizing subjects against (Myco)bacterially and/or virally infected cells or tumor cells, and in particular against HPV. The invention demonstrates that peptide sequences of 22-35 amino acid residues in length can induce both peptide-specific CD8+ cytolytic cells and CD4+ T-helper cells. Moreover, the invention demonstrates that vaccination with 22-35 residue long peptides results in a more vigorous CD8+ cytolytic T-cell response than vaccination with peptides of the exact minimal CTL epitope length. The invention further demonstrates that the intrinsic capacity of certain minimal CTL epitopes which instead of activating cytolytic effector cells tolerize these cytolytic cells, can be overcome by use of these 22-35 amino acid long peptides. The invention further provides clinically relevant approaches for vaccination and/or treatment of subjects against HPV. The invention also provides methods and uses suited to treat subjects suffering from progressive lesions and/or cervical cancer.

☐ 7. Document ID: US 20040072781 A1

L8: Entry 7 of 52

File: PGPB

Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040072781

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040072781 A1

TITLE: Materials and methods relating to fusion proteins an immune response

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Savelyeva, Natalia	Southampton		GB	
Stevenson, Freda	Southampton		GB	

US-CL-CURRENT: 514/44; 424/185.1, 536/23.2

ABSTRACT:

A nucleic acid construct is provided for delivery into living cells in vivo for inducing an immune response in a patient to an antigen; the construct directing the expression of a fusion protein, said fusion protein comprising said antigen and an adjuvant sequence derived from a plant viral coat protein. Methods for making such constructs, and methods of using such constructs for the treatment of infectious disease, cancer and B cell malignancy, are provided.

☐ 8. Document ID: US 20040047875 A1

L8: Entry 8 of 52

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040047875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040047875 A1

TITLE: Novel compounds

PUBLICATION-DATE: March 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 424/185.1; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

ABSTRACT:

The invention provides BASB201 polypeptides and polynucleotides encoding BASB201 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FORM	Draw Des
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☐ 9. Document ID: US 20040037840 A1

L8: Entry 9 of 52

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040037840

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040037840 A1

TITLE: Novel therapeutic vaccine formulations

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Beier, Anne Mette	Horsholm		DK	
Gautam, Anand	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 514/55

ABSTRACT:

The present invention relates to a novel method and formulation for the induction of immune responses against polypeptide antigens. In particular, the invention provides a method and formulation for induction of cytotoxic T cell responses against a polypeptide antigen of choice. The formulations are characterized by containing chitosan in admixture with the polypeptide antigen, preferably in the form of microparticles that may be cross-linked.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FORM	Draw Des
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☐ 10. Document ID: US 20040018177 A1

L8: Entry 10 of 52

File: PGPB

Jan 29, 2004

PGPUB-DOCUMENT-NUMBER: 20040018177

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040018177 A1

TITLE: Vaccination method

PUBLICATION-DATE: January 29, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Adrian V.S.	Oxford		GB	

McShane, Helen	Oxford	GB
Gilbert, Sarah	Oxford	GB
Schneider, Joerg	Oxford	GB

US-CL-CURRENT: 424/93.21; 424/184.1, 435/372

ABSTRACT:

There is provided a method of inducing a CD4+ T-cell response against a target antigen, by administering a composition a source of one or more CD4+ epitopes is a non-replicating or replication impaired recombinant poxvirus vector.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 11. Document ID: US 20030224036 A1

L8: Entry 11 of 52

File: PGPB

Dec 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030224036

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030224036 A1

TITLE: Hla class I a2 tumor associated antigen peptides and vaccine compositions

PUBLICATION-DATE: December 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Fikes, John D	San Diego	CA	US	
Sette, Alessandro	La Jolla	CA	US	
Sidney, John	San Diego	CA	US	
Southwood, Scott	Santee	CA	US	
Celis, Esteban	Rochester	MN	US	
Keogh, Elissa A	San Diego	CA	US	
Chestnut, Robert	Cardiff-by-the-Sea	CA	US	

US-CL-CURRENT: 424/450; 424/185.1

ABSTRACT:

A composition or vaccine composition comprising at least one peptide that has less than 600 contiguous amino acids having 100% identity to a native sequence of CEA, HER2/neu, MAGE2, MAGE3, or p53, the peptide further comprising at least one epitope selected from Table 6.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 12. Document ID: US 20030219459 A1

L8: Entry 12 of 52

File: PGPB

Nov 27, 2003



PGPUB-DOCUMENT-NUMBER: 20030219459  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030219459 A1

TITLE: Prion protein carrier-conjugates

PUBLICATION-DATE: November 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bachmann, Martin	Seuzach		CH	
Maurer, Patrik	Winterthur		CH	
Pelliccioli, Erica	Au		CH	
Renner, Wolfgang A.	Kilchberg		CH	

US-CL-CURRENT: 424/199.1; 424/185.1, 424/93.2

ABSTRACT:

The present invention is related to the fields of molecular biology, virology, immunology and medicine. The invention provides a composition comprising an ordered and repetitive antigen or antigenic determinant array, and in particular a prion peptide or prion protein-VLP-array. More specifically, the invention provides a composition comprising a virus-like particle and at least one prion protein (PrP) or a dimer thereof, or a PrP peptide bound thereto. The invention also provides a process for producing the conjugates and the ordered and repetitive arrays, respectively. The compositions of the invention are useful in the production of vaccines for the treatment of prion diseases and as a pharmaccine to prevent or cure prion diseases and to efficiently induce immune responses, in particular antibody responses. Furthermore, the compositions of the invention are particularly useful to efficiently induce self-specific immune responses within the indicated context.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMIC	Draw. Des.
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☐ 13. Document ID: US 20030185845 A1

L8: Entry 13 of 52

File: PGPB

Oct 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030185845  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030185845 A1

TITLE: Novel immunogenic mimetics of multimer proteins

PUBLICATION-DATE: October 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Klysner, Steen	Horsholm		DK	
Nielsen, Finn Stausholm	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	
Voldborg, Bjorn	Horsholm		DK	
Bratt, Tomas	Horsholm		DK	

## ABSTRACT:

The present invention relates to novel immunogenic variants of multimeric proteins such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TNF, TNF.alpha.). The variants are, besides from being immunogenic in the autologous host, also highly similar to the native 3D structure of the proteins from which they are derived. Certain variants are monomeric mimics of the multimers, where peptide linkers (inert or T helper epitope containing) ensure a spatial organisation of the monomer units that facilitate correct folding. A subset of variants are monomer TNF.alpha. variants that exhibit a superior capability of assembling into multimers with a high structural similarity to the native protein. Also disclosed are methods of treatment and production of the variants as well as DNA fragments, vectors, and host cells.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Des
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☐ 14. Document ID: US 20030157117 A1

L8: Entry 14 of 52

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

## ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

☐ 15. Document ID: US 20030138454 A1

L8: Entry 15 of 52

File: PGPB

Jul 24, 2003

PGPUB-DOCUMENT-NUMBER: 20030138454  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20030138454 A1

TITLE: Vaccination method

PUBLICATION-DATE: July 24, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Adrian V. S.	Oxford		GB	
McShane, Helen	Oxford		GB	
Gilbert, Sarah C.	Oxford		GB	
Reece, William	Newtown		AU	
Schneider, Joerg	Barton		GB	

US-CL-CURRENT: 424/199.1; 424/184.1, 424/232.1, 424/248.1, 424/268.1, 424/273.1, 424/277.1, 435/320.1, 435/7.92, 530/326

ABSTRACT:

New methods and reagents for vaccination are described which generate a CD8 T cell immune response against malarial and other antigens such as viral and tumour antigens. Novel vaccination regimes are described which employ a priming composition and a boosting composition, the boosting composition comprising a non-replicating or replication-impaired pox virus vector carrying at least one CD8 T cell epitope which is also present in the priming composition. There is also provided a method of inducing a CD4+ T-cell response against a target antigen, by administering a composition comprising a source of one or more CD4+ T cell epitopes of the target antigen wherein the source of CD4+ epitopes is a non-replicating or replication impaired recombinant poxvirus vector. A method of inducing a combined CD4+ and CD8+ T cell response against a target antigen is also described herein.

☐ 16. Document ID: US 20030068325 A1

L8: Entry 16 of 52

File: PGPB

Apr 10, 2003

PGPUB-DOCUMENT-NUMBER: 20030068325  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20030068325 A1

TITLE: Immunogenic peptide composition for the prevention and treatment of Alzheimers Disease

PUBLICATION-DATE: April 10, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Chang Yi	Cold Spring Harbor	NY	US	

US-CL-CURRENT: 424/185.1; 435/226

## ABSTRACT:

The present invention relates to a composition comprising a peptide immunogen useful for the prevention and treatment of Alzheimer's Disease. More particularly, the peptide immunogen comprises a main functional/regulatory site, an N-terminal fragment of Amyloid .beta. (A.beta.) peptide linked to a helper T cell epitope (Th) having multiple class II MHC binding motifs. The peptide immunogen elicit a site-directed immune response against the main functional/regulatory site of the A.beta. peptide and generate antibodies, which are highly cross-reactive to the soluble A.beta..sub.1-42 peptide and the amyloid plaques formed in the brain of Alzheimer's Disease patients. The antibodies elicited being cross reactive to the soluble A.beta..sub.1-42 peptide, promote fibril disaggregation and inhibit fibrillar aggregation leading to immunoneutralization of the "soluble A.beta.-derived toxins"; and being cross-reactive to the amyloid plaques, accelerate the clearance of these plaques from the brain. Thus, the composition of the invention comprising the peptide immunogen is useful for the prevention and treatment of Alzheimer's Disease.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw. Des.
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☐ 17. Document ID: US 20030044420 A1

L8: Entry 17 of 52

File: PGPB

Mar 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030044420

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030044420 A1

TITLE: Self antigen vaccines for treating B cell lymphomas and other cancers

PUBLICATION-DATE: March 6, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McCormick, Alison A.	Vacaville	CA	US	
Tuse, Daniel	Menlo Park	CA	US	
Reinl, Stephen J.	Sacramento	CA	US	
Lindbo, John A.	Vacaville	CA	US	
Turpen, Thomas H.	Vacaville	CA	US	

US-CL-CURRENT: 424/185.1; 435/320.1, 435/325, 435/69.3, 530/350, 530/388.8, 536/23.53

## ABSTRACT:

A polypeptide self-antigen useful in a tumor-specific vaccine mimics one or more epitopes of an antigen uniquely expressed by cells of the tumor. The polypeptide is preferably produced in a plant that has been transformed or transfected with nucleic acid encoding the polypeptide and is obtainable from the plant in correctly folded, preferably soluble form without a need for denaturation and renaturation. This plant-produced polypeptide is immunogenic without a need for exogenous adjuvants or other

immunostimulatory materials. The polypeptide is preferably an scFv molecule that bears the idiotype of the surface immunoglobulin of a non-Hodgkin's (or B cell) lymphoma. Upon administration to a subject with lymphoma, the plant-produced, tumor-unique scFv polypeptide induces an idiotype-specific antibody or cell-mediated immune response against the lymphoma.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 18. Document ID: US 20030044417 A1

L8: Entry 18 of 52

File: PGPB

Mar 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030044417

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030044417 A1

TITLE: Self antigen vaccines for treating B cell lymphomas and other cancers

PUBLICATION-DATE: March 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McCormick, Alison A.	Vacaville	CA	US	
Tuse, Daniel	Menlo Park	CA	US	
Reinl, Stephen J.	Sacramento	CA	US	
Lindbo, John A.	Vacaville	CA	US	
Turpen, Thomas H.	Menlo Park	CA	US	

US-CL-CURRENT: 424/184.1; 424/131.1, 424/132.1, 424/133.1, 424/192.1, 424/277.1, 435/69.1, 435/70.1, 435/70.21

ABSTRACT:

A polypeptide self-antigen useful in a tumor-specific vaccine mimics one or more epitopes of an antigen uniquely expressed by cells of the tumor. The polypeptide is preferably produced in a plant that has been transformed or transfected with nucleic acid encoding the polypeptide and is obtainable from the plant in correctly folded, preferably soluble form without a need for denaturation and renaturation. This plant-produced polypeptide is immunogenic without a need for exogenous adjuvants or other immunostimulatory materials. The polypeptide is preferably an scFv molecule that bears the idiotype of the surface immunoglobulin of a non-Hodgkin's (or B cell) lymphoma. Upon administration to a subject with lymphoma, the plant-produced, tumor-unique scFv polypeptide induces an idiotype-specific antibody or cell-mediated immune response against the lymphoma.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 19. Document ID: US 20030039659 A1

L8: Entry 19 of 52

File: PGPB

Feb 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030039659

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030039659 A1

TITLE: Self antigen vaccines for treating B cell lymphomas and other cancers

PUBLICATION-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McCormick, Alison A.	Vacaville	CA	US	
Tuse, Daniel	Menlo Park	CA	US	
Reinl, Stephen J.	Sacramento	CA	US	
Lindbo, John A.	Vacaville	CA	US	
Turpen, Thomas H.	Vacaville	CA	US	

US-CL-CURRENT: 424/185.1; 530/350, 800/288

ABSTRACT:

A polypeptide self-antigen useful in a tumor-specific vaccine mimics one or more epitopes of an antigen uniquely expressed by cells of the tumor. The polypeptide is preferably produced in a plant that has been transformed or transfected with nucleic acid encoding the polypeptide and is obtainable from the plant in correctly folded, preferably soluble form without a need for denaturation and renaturation. This plant-produced polypeptide is immunogenic without a need for exogenous adjuvants or other immunostimulatory materials. The polypeptide is preferably an scFv molecule that bears the idiotype of the surface immunoglobulin of a non-Hodgkin's (or B cell) lymphoma. Upon administration to a subject with lymphoma, the plant-produced, tumor-unique scFv polypeptide induces an idiotype-specific antibody or cell-mediated immune response against the lymphoma.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Drawn Desc
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☐ 20. Document ID: US 20030035807 A1

L8: Entry 20 of 52

File: PGPB

Feb 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030035807

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030035807 A1

TITLE: Self antigen vaccines for treating B cell lymphomas and other cancers

PUBLICATION-DATE: February 20, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
McCormick, Alison A.	Vacaville	CA	US	
Tuse, Daniel	Menlo Park	CA	US	
Reinl, Stephen J.	Sacramento	CA	US	
Lindbo, John A.	Vacaville	CA	US	
Turpen, Thomas H.	Vacaville	CA	US	

US-CL-CURRENT: 424/185.1; 424/155.1, 530/388.1, 800/288

ABSTRACT:

A polypeptide self-antigen useful in a tumor-specific vaccine mimics one or more epitopes of an antigen uniquely expressed by cells of the tumor. The polypeptide is preferably produced in a plant that has been transformed or transfected with nucleic acid encoding the polypeptide and is obtainable from the plant in correctly folded, preferably soluble form without a need for denaturation and renaturation. This plant-produced polypeptide is immunogenic without a need for exogenous adjuvants or other immunostimulatory materials. The polypeptide is preferably an scFv molecule that bears the idiotype of the surface immunoglobulin of a non-Hodgkin's (or B cell) lymphoma. Upon administration to a subject with lymphoma, the plant-produced, tumor-unique scFv polypeptide induces an idiotype-specific antibody or cell-mediated immune response against the lymphoma.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw. Des.
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☐ 21. Document ID: US 20030027979 A1

L8: Entry 21 of 52

File: PGPB

Feb 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030027979

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030027979 A1

TITLE: Synthetic peptide composition as immunogens for prevention of urinary tract infection

PUBLICATION-DATE: February 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wang, Chang Yi	Cold Spring Harbor	NY	US	

US-CL-CURRENT: 530/317; 424/185.1

ABSTRACT:

The invention provides a peptide immunogen comprising a FAFSD target peptide or an analogue thereof, covalently linked to a helper T cell epitope and optionally to an invasin immunostimulatory domain. The present invention also provides for the use of such peptide immunogens to elicit the production in mammals of high titer polyclonal antibodies, which are specific to the FAFSD target peptide. The peptide immunogens are expected to be useful in evoking antibodies that prevent the adherence of E. coli and other enterobacteria to the bladder mucosa for protection against urinary tract infection.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw. Des.
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☐ 22. Document ID: US 20020142001 A1

L8: Entry 22 of 52

File: PGPB

Oct 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020142001

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020142001 A1

TITLE: DNA immunization against Chlamydia infection

PUBLICATION-DATE: October 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Brunham, Robert C.	Winnipeg	CA	US	

US-CL-CURRENT: 424/184.1

ABSTRACT:

Nucleic acid, including DNA, for immunization to generate a protective immune response in a host, including humans, to a major outer membrane protein of a strain of Chlamydia, preferably contains a nucleotide sequence encoding a MOMP or a MOMP fragment that generates antibodies that specifically react with MOMP and a promoter sequence operatively coupled to the first nucleotide sequence for expression of the MOMP in the host. The non-replicating vector may be formulated with a pharmaceutically-acceptable carrier for in vivo administration to the host.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Drawn Des
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☐ 23. Document ID: US 20020119162 A1

L8: Entry 23 of 52

File: PGPB

Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119162

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/185.1

ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tressyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.



☐ 24. Document ID: US 20020102232 A1

L8: Entry 24 of 52

File: PGPB

Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020102232  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020102232 A1

TITLE: Compositions and methods for induction of active autoimmunity

PUBLICATION-DATE: August 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chang, Tse W.	Taipei		TW	
Sheu, Jim J.C.	Hua-Lien		TW	
Huang, Janice S.W.	Hsinchu		TW	
Wu, Stanley C.S.	Taichung		TW	
Chen, Leslie Y.Y.	Miaoli		TW	

US-CL-CURRENT: 424/85.1; 424/178.1, 424/185.1, 435/320.1, 435/325, 435/69.5, 536/23.5

ABSTRACT:

A recombinant first antigen, coupled with a foreign protein (such as immunoglobulin Fc from different species), can be used as a vaccine to induce active auto-immunity specifically through a T cell-dependent antibody response. The induced autoantibodies can recognize self-antigen in vivo and trigger immune responses to reduce or eliminate a target autologous antigen. Since there is evidence that the pathogenesis of some diseases, such as cancer, allergy, arthritis, atherosclerosis, graft rejection, or other inflammatory diseases, are caused by increased levels of certain autologous proteins, the instant compositions and methods provide a method of inducing autoantibodies to down-regulate the levels of a target autologous antigen or cells expressing the antigen to ameliorate diseases or disorders.

☐ 25. Document ID: US 20020044948 A1

L8: Entry 25 of 52

File: PGPB

Apr 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020044948  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020044948 A1

TITLE: Methods and compositions for co-stimulation of immunological responses to peptide antigens

PUBLICATION-DATE: April 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Khleif, Samir	Silverspring	MD	US	
Berzofsky, Jay	Bethesda	MD	US	

US-CL-CURRENT: 424/234.1; 424/184.1, 530/350

ABSTRACT:

Method for eliciting an immune response in a vertebrate subject are provided involving administration of a peptide antigen to the subject in a coordinated vaccination procedure that also involves administration of a non-viral vector that encodes a T cell co-stimulatory molecule. The peptide antigen contains at least one T cell epitope and may include an epitope of a tumor antigen or an antigen of a viral or non-viral pathogen. Epitopes from tumor antigens may represent fragments or partial amino acid sequences of p53, ras, rb, mcc, apc, dcc; nfl; VHL; MEN1, MEN2, MLM, Her-2neu, CEA, PSA; Muc1, Gp100, tyrosinase, or MART1 proteins, and often span a mutation identified in the tumor antigen. Various viral antigens may be selected, for example antigens identified in a human immunodeficiency virus (HIV), hepatitis B virus (HBV), herpes simplex virus (HSV) or human papilloma virus (HPV), for production of peptide antigens corresponding to immunogenic epitopes of the viral antigen. The peptide antigen is administered simultaneously or sequentially with administration of the vector encoding the co-stimulatory molecules. Co-stimulatory molecules useful for coordinate administration with peptide antigens to elicit an enhanced T cell-mediated immune response may be selected from B7-1, B7-2, B7-3, ICAM1, ICAM2, LFA1 or LFA2. The peptide antigen and non-viral vector encoding the T cell co-stimulatory molecule are administered to proximal target sites selected from the same, or closely-adjacent, intradermal, subcutaneous, mucosal or intratumoral sites.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMIC	Draw Des
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☐ 26. Document ID: US 6811782 B1

L8: Entry 26 of 52

File: USPT

Nov 2, 2004

US-PAT-NO: 6811782

DOCUMENT-IDENTIFIER: US 6811782 B1

TITLE: Peptide composition as immunogen for the treatment of allergy

DATE-ISSUED: November 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Chang Yi	Cold Spring Harbor	NY		
Walfield; Alan M.	Huntington Station	NY		

US-CL-CURRENT: 424/185.1; 424/193.1, 530/324

ABSTRACT:

The invention provides peptides comprising a sequence homologous to a portion of the third constant domain of the epsilon heavy chain of IgE, covalently linked to either (1) a carrier protein, or (2) a helper T cell epitope, and optionally to other immunostimulatory sequences as well. The invention provides for the use of such peptides as immunogens to elicit the production in mammals of high titer polyclonal

antibodies, which are specific to a target effector site on the epsilon heavy chain of IgE. The peptides are expected to be useful in pharmaceutical compositions, to provide an immunotherapy for IgE-mediated allergic diseases.

4 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 27. Document ID: US 6676946 B2

L8: Entry 27 of 52

File: USPT

Jan 13, 2004

US-PAT-NO: 6676946

DOCUMENT-IDENTIFIER: US 6676946 B2

TITLE: Multiple antigen glycopeptide carbohydrate vaccine comprising the same and use thereof

DATE-ISSUED: January 13, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bay; Sylvie	Paris			FR
Cantacuzene; Daniele	Paris			FR
Leclerc; Claude	Paris			FR
Lo-Man; Richard	Paris			FR
Vicher-Guerre; Sophie	La Celle Saint Cloud			FR

US-CL-CURRENT: 424/196.11; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/194.1, 530/324, 530/350, 536/1.11

ABSTRACT:

A carbohydrate peptide conjugate containing: (i) a carrier containing a dendrimeric poly-lysine enabling multiple epitopes to be covalently attached thereto, (ii) at least one peptide containing one T epitope or several identical or different T-epitopes, (iii) at least one carbohydrate moiety which is tumor antigen, or a derivative thereof, containing a B epitope, provided it is not a sialoside, or several identical or different epitopes, wherein said conjugate containing at least 3-lysines and up to 15 lysine covalently linked to one another, and wherein: (a) to the NH.sub.2 and of at least two lysine residues is bound at least one carbohydrate residue being not a sialoside, optionally substituted and containing an epitope and wherein the peptide containing one T epitope is covalently bound to the end of said carbohydrate which induces immune responses.

3 Claims, 37 Drawing figures  
Exemplary Claim Number: 1,3  
Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 28. Document ID: US 6669945 B1

US-PAT-NO: 6669945

DOCUMENT-IDENTIFIER: US 6669945 B1

TITLE: Universal T-cell epitopes for anti-malarial vaccines

DATE-ISSUED: December 30, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nardin; Elizabeth	Leonia	NJ		
Morena; Alberto	Santafe de Bogota	CO		

US-CL-CURRENT: 424/272.1; 424/191.1, 424/193.1, 530/300, 530/323, 530/326, 530/806, 530/822

## ABSTRACT:

The present invention provides methods and compositions for eliciting protective immunity against malaria. In particular, the invention relates to universal T-cell epitopes that elicit T-cell responses in individuals of differing genetic backgrounds. Immunogenic compositions and vaccines including malaria-specific universal T-cell epitopes are disclosed.

24 Claims, 9 Drawing figures

Exemplary Claim Number: 1,9,15

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw. Desc.
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☐ 29. Document ID: US 6663871 B1

L8: Entry 29 of 52

File: USPT

Dec 16, 2003

US-PAT-NO: 6663871

DOCUMENT-IDENTIFIER: US 6663871 B1

TITLE: Methods and reagents for vaccination which generate a CD8 T cell immune response

DATE-ISSUED: December 16, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McMichael; Andrew	Beckley			GB
Hill; Adrian V. S.	Old Headington			GB
Gilbert; Sarah C.	Headington			GB
Schneider; Jorg	Barton			GB
Plebanski; Magdalena	Melbourne			AU
Hanke; Tomas	Old Marston			GB
Smith; Geoffrey L.	Oxford			GB
Blanchard; Tom	Banjul			ZA

US-CL-CURRENT: 424/199.1; 424/185.1, 435/320.1, 530/300

ABSTRACT:

New methods and reagents for vaccination are described which generate a CD8 T cell immune response against malarial and other antigens such as viral and tumour antigens. Novel vaccination regimes are described which employ a priming composition and a boosting composition, the boosting composition comprising a non-replicating or replication-impaired pox virus vector carrying at least one CD8 T cell epitope which is also present in the priming composition.

20 Claims, 33 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 13

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMCC	Draw. Des.
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☐ 30. Document ID: US 6656472 B1

L8: Entry 30 of 52

File: USPT

Dec 2, 2003

US-PAT-NO: 6656472

DOCUMENT-IDENTIFIER: US 6656472 B1

TITLE: Multi oligosaccharide glycoconjugate bacterial meningitis vaccines

DATE-ISSUED: December 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Lindberg; Alf	Lyons			FR
Klein; Michel H.	Willowdale			CA

US-CL-CURRENT: 424/193.1; 424/197.11, 424/244.1, 424/249.1, 424/250.1, 530/322, 530/335, 530/345, 530/402, 530/403, 530/807

ABSTRACT:

Multivalent immunogenic molecules comprise a carrier molecule containing at least one functional T-cell epitope and multiple different carbohydrate fragments each linked to the carrier molecule and each containing at least one functional B-cell epitope. The carrier molecule imparts enhanced immunogenicity to the multiple carbohydrate fragments. The carbohydrate fragments may be capsular oligosaccharide fragments from *Streptococcus pneumoniae* which may be serotypes (1, 4, 5, 6B, 9V, 14, 18C, 19F or 23F), or *Neisseria meningitidis*, which may be serotype (A, B, C) W-135 or Y. Such oligosaccharide fragments may be sized from about 2 to about 5 kDa. Alternatively, the carbohydrate fragments may be fragments of carbohydrate-based tumor antigens, such as Globo H, Le.sup.Y or STn. The multivalent molecules may be produced by random conjugation or site-directed conjugation of the carbohydrate fragments to the carrier molecule. The multivalent molecules may be employed in vaccines or in the generation of antibodies for diagnostic applications.

8 Claims, 12 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KIMC	Draw Des
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☐ 31. Document ID: US 6653461 B2

L8: Entry 31 of 52

File: USPT

Nov 25, 2003

US-PAT-NO: 6653461

DOCUMENT-IDENTIFIER: US 6653461 B2

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of Chlamydia trachomatis

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 536/23.1; 424/184.1, 424/200.1, 435/320.1, 435/91.2, 530/300, 530/328, 530/350

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

9 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KIMC	Draw Des
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☐ 32. Document ID: US 6602510 B1

L8: Entry 32 of 52

File: USPT

Aug 5, 2003

US-PAT-NO: 6602510

DOCUMENT-IDENTIFIER: US 6602510 B1

TITLE: HLA class I A2 tumor associated antigen peptides and vaccine compositions

DATE-ISSUED: August 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fikes; John D.	San Diego	CA		
Sette; Alessandro	La Jolla	CA		
Sidney; John	San Diego	CA		

Southwood; Scott	Santee	CA
Celis; Esteban	Rochester	MN
Keogh; Elissa A.	San Diego	CA
Chesnut; Robert	Cardiff-by-the-Sea	CA

US-CL-CURRENT: 424/277.1; 424/192.1, 424/193.1, 424/450, 424/93.71, 514/12, 514/13, 514/14, 514/15, 514/2, 530/324, 530/325, 530/326, 530/327, 530/328, 530/402

ABSTRACT:

A composition or vaccine composition comprising eight isolated epitopes consisting of YLSGANLNV (SEQ. ID. NO: 1), IMIGVLVG (SEQ. ID. NO: 2), KLBPVQLWV (SEQ. ID. NO: 3), SMPPPGTRV (SEQ. ID. NO: 4), KVAELVHFL (SEQ. ID. NO: 5), YLQLVFGIEV (SEQ. ID. NO: 6), RLLQETELV (SEQ. ID. NO: 7), and, VVLGVVFGI (SEQ. ID. NO: 8).

11 Claims, 5 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMO	Draw Des
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☐ 33. Document ID: US 6589529 B1

L8: Entry 33 of 52

File: USPT

Jul 8, 2003

US-PAT-NO: 6589529

DOCUMENT-IDENTIFIER: US 6589529 B1

TITLE: Rotavirus subunit vaccine

DATE-ISSUED: July 8, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Choi; Anthony	Park Hills	KY		
Ward; Richard L.	Cincinnati	OH		

US-CL-CURRENT: 424/186.1; 424/184.1, 424/185.1, 424/204.1, 424/215.1

ABSTRACT:

The present invention is directed to the generation and use of recombinant rotavirus fusion proteins as immunogens to produce a protective immune response from immunized individuals. In one embodiment, the present invention contemplates a recombinant rotavirus fusion protein vaccine composition comprising a rotavirus subunit protein or immunogenic fragment thereof, and an adjuvant in combination with the recombinant rotavirus subunit fusion protein. In one aspect of this embodiment, the recombinant rotavirus fusion protein comprises a rotavirus subunit protein and a fusion partner protein in genetic association with the rotavirus subunit protein, wherein the fusion partner protein does not interfere with expression and immunogenicity of the rotavirus subunit protein, the fusion partner protein prevents complex formation by the rotavirus subunit protein, and the fusion partner protein facilitates purification of the recombinant rotavirus fusion protein. In another aspect of this embodiment, the rotavirus subunit protein is selected from the group consisting of VP1, VP2, VP3, VP4, VP6, VP7, NSP1, NSP2, NSP3, NSP4 or NSP5. In yet another aspect of this embodiment, the rotavirus subunit protein is VP6.

7 Claims, 7 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 34. Document ID: US 6464980 B1

L8: Entry 34 of 52

File: USPT

Oct 15, 2002

US-PAT-NO: 6464980

DOCUMENT-IDENTIFIER: US 6464980 B1

TITLE: MAGE-1 c-terminal immunogenic peptides

DATE-ISSUED: October 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fikes; John D.	San Diego	CA		
Livingston; Brian D.	San Diego	CA		
Sette; Alessandro D.	La Jolla	CA		
Sidney; John C.	La Jolla	CA		

US-CL-CURRENT: 424/185.1, 424/184.1, 424/277.1, 514/14, 514/15, 514/2, 514/21,  
530/300, 530/324, 530/326, 530/327, 530/328

ABSTRACT:

The complete nucleotide and amino acid sequences of the human MAGE-1 antigen are provided. Peptides from residues of the C-terminal are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against MAGE-1 antigens. The peptides are particularly useful in methods for stimulating the immune response of individuals against MAGE-1 antigens associated with melanomas.

5 Claims, 10 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 35. Document ID: US 6458362 B1

L8: Entry 35 of 52

File: USPT

Oct 1, 2002

US-PAT-NO: 6458362

DOCUMENT-IDENTIFIER: US 6458362 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Recombinant VP2 parvoviral pseudo-particles encoding CTL or T-helper cell epitopes

DATE-ISSUED: October 1, 2002



## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Casal; Ignacio	Madrid			ES
Sedlik; Christine	Argenteuil			FR
Sarraseca; Javier	Madrid			ES
Lo-Man; Richard	Paris			FR
Rueda; Paloma	Madrid			ES
Leclerc; Claude	Paris			FR

US-CL-CURRENT: 424/199.1; 424/184.1, 424/186.1, 424/192.1, 424/233.1, 435/235.1, 435/320.1

## ABSTRACT:

Attempts to generate modified viral pseudo-particles that are capable of stably incorporating heterologous antigenic determinants has encountered a number of difficulties including inhibition of pseudo-particle formation following epitope insertion and failure of the epitope to retain its native configuration. The present invention is directed toward recombinant viral pseudo-particles of the family Parvoviridae that stably encode heterologous epitopes. Hybrid virus-like particles (VLP) were prepared by self-assembly of a modified porcine parvovirus (PPV) VP2 capsid protein carrying a CD8.sup.+ or CD4.sup.+ T cell epitope in the amino terminus. Immunization of mice with hybrid pseudo-particles carrying a lymphocytic choriomeningitis virus (LCMV) nucleoprotein CTL epitope, without adjuvant, induced strong cytotoxic T lymphocyte (CTL) responses against both peptide-coated- or virus-infected-target cells. Immunization of mice with hybrid pseudo-particles carrying a hepatitis B virus (HBV) T helper cell epitope, without adjuvant, induced strong T helper lymphocyte responses against the reporter epitope. These recombinant viral pseudo-particles are easily produced by the baculovirus expression system and, therefore, represent a promising and safe strategy to induce strong CTL and T-helper cell responses for the elimination of virus-infected cells.

14 Claims, 27 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw Des
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☐ 36. Document ID: US 6447778 B1

L8: Entry 36 of 52

File: USPT

Sep 10, 2002

US-PAT-NO: 6447778

DOCUMENT-IDENTIFIER: US 6447778 B1

TITLE: Peptide compositions for the treatment of HIV infection

DATE-ISSUED: September 10, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rubinstein; Arye	Monsey-Wesley Hills	NY		
Bloom; Barry R.	Hastings on Hudson	NY		
Devash; Yair	Princeton Junction	NJ		
Cryz; Stanley J.	Berne			CH

US-CL-CURRENT: 424/188.1; 424/193.1, 424/194.1, 424/208.1

ABSTRACT:

The present invention provides for peptide conjugate compositions, methods of using the peptide conjugate compositions, and pharmaceutical compositions comprising the peptide conjugate compositions. The peptide conjugate compositions comprise peptides with amino acid sequences similar to the gp120 principal neutralizing domain (PND) of HIV, gp41, and Nef (p27) of HIV and carriers which enhance immunogenicity. The peptide conjugate compositions of the present invention may comprise a multivalent cocktail of several different peptide conjugates. Also provided by present invention is a method for reducing the level of HIV titers in a mammal by administering to the mammal a peptide composition of the present invention in an amount effective to reduce the level of HIV titers. The peptide conjugate compositions of the present invention induce prolonged antibody response in serum, a high level of antibody in the mucosa, and the production of cytotoxic lymphocytes. The peptide conjugate compositions of the present invention also elicit neutralizing antibodies and decrease viral loads in a subject.

3 Claims, 48 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 26

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMQC	Draw Des
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☐ 37. Document ID: US 6432675 B1

L8: Entry 37 of 52

File: USPT

Aug 13, 2002

US-PAT-NO: 6432675

DOCUMENT-IDENTIFIER: US 6432675 B1

TITLE: Combinatorial polypeptide antigens

DATE-ISSUED: August 13, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crea; Roberto	Belmont	MA	02178	

US-CL-CURRENT: 435/69.3; 424/184.1, 424/188.1, 424/204.1, 435/455, 530/324, 530/325, 702/19

ABSTRACT:

The invention provides a method of generating a set of polypeptide antigens derived from a protein (or portion thereof) which is expressed with some degree of sequence heterogeneity among naturally or artificially induced variants of the protein. The purpose is to provide a mix of antigens which can be used to immunize against the variants and, preferably, possible unknown or new variants that may arise.

13 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMQC	Draw Des
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☐ 38. Document ID: US 6410023 B1

L8: Entry 38 of 52

File: USPT

Jun 25, 2002

US-PAT-NO: 6410023

DOCUMENT-IDENTIFIER: US 6410023 B1

TITLE: Recombinant parainfluenza virus vaccines attenuated by deletion or ablation of a non-essential gene

DATE-ISSUED: June 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Durbin; Anna P.	Takoma Park	MD		
Collins; Peter L.	Rockville	MD		
Murphy; Brian R.	Bethesda	MD		

US-CL-CURRENT: 424/186.1; 424/184.1, 424/185.1, 424/199.1, 424/211.1, 424/212.1, 435/252.3, 435/320.1, 435/440, 435/69.1

ABSTRACT:

Recombinant parainfluenza virus (PIV) are provided in which expression of the C, D and/or V translational open reading frame(s) (ORFs) is reduced or ablated to yield novel PIV vaccine candidates. Expression of the C, D and/or V ORF(s) is reduced or ablated by modifying a recombinant PIV genome or antigenome, for example by introduction of a stop codon, by a mutation in an RNA editing site, by a mutation that alters the amino acid specified by an initiation codon, or by a frame shift mutation in the targeted ORF(s). Alternatively, the C, D and/or V ORF(s) is deleted in whole or in part to render the protein(s) encoded thereby partially or entirely non-functional or to disrupt protein expression altogether. C, D and/or V ORF(s) deletion and knock out mutants possess highly desirable phenotypic characteristics for vaccine development. These deletion and knock out mutations changes specify one or more desired phenotypic changes in the resulting virus or subviral particle. Vaccine candidates are generated that show a change in viral growth characteristics, attenuation, plaque size, and/or a change in cytopathogenicity, among other novel phenotypes. A variety of additional mutations and nucleotide modifications are provided within the C, D and/or V ORF(s) deletion or ablation mutant PIV of the invention to yield desired phenotypic and structural effects.

53 Claims, 3 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	EMMC	Draft Des
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☐ 39. Document ID: US 6399074 B1

L8: Entry 39 of 52

File: USPT

Jun 4, 2002

US-PAT-NO: 6399074

DOCUMENT-IDENTIFIER: US 6399074 B1

TITLE: Live attenuated salmonella vaccines to control avian pathogens

DATE-ISSUED: June 4, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roland; Kenneth L.	St. Louis	MO		

US-CL-CURRENT: 424/200.1; 424/184.1, 424/93.2, 435/252.1, 435/252.3, 435/252.8, 435/320.1

ABSTRACT:

A vaccine for protecting birds against infection by avian pathogenic gram negative microbes is disclosed. The vaccine is a recombinant Salmonella strain expressing O-antigen of an avian pathogenic gram negative microbe such as an E. coli strain that is pathogenic in poultry. The recombinant Salmonella strain also does not express Salmonella O-antigen. Methods of using the vaccine to immunize birds are also disclosed.

30 Claims, 7 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMO	Draw Des
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☐ 40. Document ID: US 6344202 B1

L8: Entry 40 of 52

File: USPT

Feb 5, 2002

US-PAT-NO: 6344202

DOCUMENT-IDENTIFIER: US 6344202 B1

TITLE: DNA immunization against chlamydia infection

DATE-ISSUED: February 5, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Brunham; Robert C.	Winnipeg			CA

US-CL-CURRENT: 424/263.1; 424/185.1, 530/350, 530/389.5, 530/412, 536/22.1, 536/23.1, 536/23.7

ABSTRACT:

Nucleic acid, including DNA, for immunization to generate a protective immune response in a host, including humans, to a major outer membrane protein of a strain of Chlamydia, preferably contains a nucleotide sequence encoding a MOMP or a MOMP fragment that generates antibodies that specifically react with MOMP and a promoter sequence operatively coupled to the first nucleotide sequence for expression of the MOMP in the host. The non-replicating vector may be formulated with a pharmaceutically-acceptable carrier for in vivo administration to the host.

17 Claims, 367 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 26

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 41. Document ID: US 6322789 B1

L8: Entry 41 of 52

File: USPT

Nov 27, 2001

US-PAT-NO: 6322789

DOCUMENT-IDENTIFIER: US 6322789 B1

TITLE: HLA-restricted hepatitis B virus CTL epitopes

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vitiello; Maria A.	La Jolla	CA		
Chesnut; Robert W.	Cardiff by the Sea	CA		

US-CL-CURRENT: 424/189.1; 424/193.1, 424/196.11, 424/227.1

ABSTRACT:

Cytotoxic T lymphocyte-stimulating peptides induce HLA-restricted responses to hepatitis B virus antigens. The peptides, derived from CTL epitopic regions of both HBV surface and nucleocapsid antigens, are particularly useful in the treatment and prevention of HBV infection, including the treatment of chronically infected HBV carriers. The peptides can be formulated as HBV vaccines and pharmaceutical compositions, such as lipid-containing compositions for enhancing the HLA-restricted CTL responses. The peptides are also useful in diagnostic methods, such as predicting which HBV-infected individuals are prone to developing chronic infection.

22 Claims, 51 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 42. Document ID: US 6183745 B1

L8: Entry 42 of 52

File: USPT

Feb 6, 2001

US-PAT-NO: 6183745

DOCUMENT-IDENTIFIER: US 6183745 B1

TITLE: Subunit papilloma virus vaccine and peptides for use therein

DATE-ISSUED: February 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tindle; Robert	Kenmore			AU
Fernando; Germain	Jamboree Heights			AU

US-CL-CURRENT: 424/185.1; 530/350, 530/395, 530/403

## ABSTRACT:

The invention relates to a subunit papillomavirus vaccine which is protective against anogenital human Papillomavirus (HPV) infection. Peptides are also provided, which constitute an antigenic component of the vaccine. The peptide includes the sequence DRAHYNI (SEQ ID NO:11) and structural homologues thereof which concern a single amino acid substitution. The peptide is linked directly or indirectly to one or more amino acid sequences which correspond to a B epitope HPV16 and HPV18. The DRAHYNI (SEQ ID NO:11) sequence corresponds to a T helper epitope sequence.

23 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMCC	Draw Des
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☐ 43. Document ID: US 6139843 A

L8: Entry 43 of 52

File: USPT

Oct 31, 2000

US-PAT-NO: 6139843

DOCUMENT-IDENTIFIER: US 6139843 A

TITLE: Peptide compositions for the treatment of HIV

DATE-ISSUED: October 31, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rubinstein; Arye	Monsey-Wesley Hills	NY		
Bloom; Barry R.	Hastings on Hudson	NY		
Devash; Yair	Princeton Junction	NJ		
Cryz; Stanley J.	Berne			CH

US-CL-CURRENT: 424/208.1; 424/184.1, 424/188.1, 424/193.1, 424/194.1, 424/196.11, 424/204.1, 424/207.1, 530/324, 530/325

## ABSTRACT:

The present invention provides for peptide conjugate compositions, methods of using the peptide conjugate compositions, and pharmaceutical compositions comprising the peptide conjugate compositions. The peptide conjugate compositions comprise peptides with amino acid sequences similar to the gp120 principal neutralizing domain (PND) of HIV, gp41, and Nef (p27) of HIV and carriers which enhance immunogenicity. The peptide conjugate compositions of the present invention may comprise a multivalent cocktail of several different peptide conjugates. Also provided by present invention is a method for reducing the level of HIV titers in a mammal by administering to the mammal a peptide composition of the present invention in an amount effective to reduce the level of HIV titers. The peptide conjugate compositions of the present invention induce prolonged antibody response in serum, a high level of antibody in the mucosa, and the production of cytotoxic lymphocytes. The peptide conjugate compositions of the present invention also elicit neutralizing antibodies and

decrease viral loads in a subject.

3 Claims, 48 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 25

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw Des
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☐ 44. Document ID: US 6090388 A

L8: Entry 44 of 52

File: USPT

Jul 18, 2000

US-PAT-NO: 6090388  
DOCUMENT-IDENTIFIER: US 6090388 A

TITLE: Peptide composition for prevention and treatment of HIV infection and immune disorders

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Chang Yi	Cold Spring Harbor	NY		

US-CL-CURRENT: 424/185.1; 424/186.1, 424/189.1, 424/194.1, 424/236.1, 530/300, 530/323, 530/324, 530/326

ABSTRACT:

The invention provides peptides comprising a sequence homologous to a portion of the CDR-2 like domain of CD4, covalently linked to a helper T cell epitope, and optionally to other immunostimulatory sequences as well. The invention provides for the use of such peptides as immunogens to elicit the production in mammals of high titer polyclonal auto-antibodies, which are specific to CD4 surface complex. These auto-antibodies prevent binding of HIV viral particles to CD4+ cells. The peptides are useful in pharmaceutical compositions, to provide an immunotherapy for HIV infection and to protect against HIV infection.

23 Claims, 1 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw Des
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☐ 45. Document ID: US 6018019 A

L8: Entry 45 of 52

File: USPT

Jan 25, 2000

US-PAT-NO: 6018019  
DOCUMENT-IDENTIFIER: US 6018019 A

TITLE: Synthetic Haemophilus influenzae conjugate vaccine

DATE-ISSUED: January 25, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 530/324; 424/185.1, 424/190.1, 424/256.1, 435/851, 530/325, 530/326, 530/327

## ABSTRACT:

The present invention provides immunogenic synthetic peptides which are useful alone or in PRP-conjugates in vaccines against Hemophilus influenza infection. Modifications are possible within the scope of the invention.

5 Claims, 28 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 46. Document ID: US 6001372 A

L8: Entry 46 of 52

File: USPT

Dec 14, 1999

US-PAT-NO: 6001372

DOCUMENT-IDENTIFIER: US 6001372 A

TITLE: Antigenic peptides of Chlamydia trachomatis

DATE-ISSUED: December 14, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Ortiz; Linette	Pardeeville	WI		

US-CL-CURRENT: 424/263.1; 424/184.1, 424/185.1, 424/190.1, 424/234.1, 530/326, 530/328, 530/350

## ABSTRACT:

Disclosed herein are short antigenic peptides of MOMP protein from Chlamydia trachomatis. They can be used to stimulate antigenic responses and to diagnose the presence of the bacteria.

1 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 47. Document ID: US 5993819 A

L8: Entry 47 of 52

File: USPT

Nov 30, 1999

US-PAT-NO: 5993819

DOCUMENT-IDENTIFIER: US 5993819 A

TITLE: Synthetic vaccine for protection against human immunodeficiency virus infection

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Haynes; Barton F.	Durham	NC		
Palker; Thomas J.	Durham	NC		

US-CL-CURRENT: 424/188.1; 424/184.1, 424/204.1, 424/208.1, 530/324, 530/325, 530/326, 530/350

ABSTRACT:

The present invention relates to immunogenic preparations of peptides comprising amino acid sequences corresponding to antigenic determinants of the envelope glycoprotein of HIV, covalently coupled, directly or through a spacer molecule, to carrier molecules suitable for vaccination of mammals.

2 Claims, 52 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 35

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 48. Document ID: US 5972349 A

L8: Entry 48 of 52

File: USPT

Oct 26, 1999

US-PAT-NO: 5972349

DOCUMENT-IDENTIFIER: US 5972349 A

TITLE: Synthesis of polyribosylribitol phosphate oligosaccharides

DATE-ISSUED: October 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 424/256.1; 424/184.1, 424/193.1, 424/194.1, 514/109, 514/112, 514/120, 514/125, 514/129, 514/139, 514/143, 514/183, 514/23, 514/25, 514/506, 514/54, 514/75, 514/99, 536/1.11, 536/117, 536/123.1, 536/126, 536/127, 536/18.7, 536/4.1

ABSTRACT:

Polyribosylribitol phosphate oligosaccharides are produced in a multistep process. The compound of the formula: ##STR1## wherein R.sub.1 is a first protecting group and R.sub.2 is a second protecting group, is coupled to a solid polyethylene glycol monomethyl ether (PEG) support. Following removal of the first protecting group, the resulting compound is coupled with a repeating unit for chain elongation of the formula: ##STR2## The protecting group is removed from the phosphorus atom and the steps of removing the first protecting group, coupling with the repeating unit is repeated until the desired number of repeating units in the oligomer has been terminated. The oligomer then is terminated with a chain terminating molecule of the formula: ##STR3## wherein m is an integer and R.sub.3 is a third protecting group. The resulting PEG-bound protected oligomer is a new product and the oligomer may be cleaved from the support and processed to provide a chemically-reactive functional group for binding the polysaccharide oligomer to a carrier molecule.

8 Claims, 28 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	RMK	Draw Des
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☐ 49. Document ID: US 5895651 A

L8: Entry 49 of 52

File: USPT

Apr 20, 1999

US-PAT-NO: 5895651

DOCUMENT-IDENTIFIER: US 5895651 A

TITLE: Recombinant dengue virus envelope protein/maltose-binding protein antigens and subunit vaccine compositions containing said antigens

DATE-ISSUED: April 20, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Simmons; Monika	Gaithersburg	MD		
Hayes; Curtis G.	Frederick	MD		
Porter; Kevin R.	Gaithersburg	MD		

US-CL-CURRENT: 424/192.1; 424/185.1, 424/218.1, 530/350

ABSTRACT:

A recombinant fusion protein (DEN-2 MBP) containing the B domain of the dengue (DEN 2) envelope protein is disclosed as a candidate subunit immunogen for vaccination against dengue virus infection. A gene fragment encoding amino acid 298 to amino acid 400 of the DEN-2 virus envelope was expressed as a fusion protein with the maltose binding protein (MBP) of Escherichia coli (E. coli). The recombinant fusion protein was purified and analyzed for its antigenicity immunogenicity and ability to protect mice against lethal challenge. This antigen is detected by monoclonal antibody (3H5) which is specific for a neutralizing epitope on the DEN-2 envelope and reacted with homologous polyclonal mouse immune ascitic fluid and DEN-2 immune human sera. A recombinant fusion plasmid bearing the DEN-2 MBP DNA sequence, expressing the fusion product in E. coli is disclosed. The fusion protein when administered to a host elicits a virus neutralizing antibody response which confers partial protection to the recipient animals against challenge infection. Sera from immunized mice revealed

no neutralizing antibodies to any of the other DEN serotypes in the plaque reduction neutralization assay (PRNT).

14 Claims, 1 Drawing figures  
Exemplary Claim Number: 11  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMIC	Draw Des
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☐ 50. Document ID: US 5788969 A

L8: Entry 50 of 52

File: USPT

Aug 4, 1998

US-PAT-NO: 5788969

DOCUMENT-IDENTIFIER: US 5788969 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Peptides for inducing cytotoxic T lymphocyte responses hepatitis B virus

DATE-ISSUED: August 4, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/189.1; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/196.11,  
424/204.1, 424/227.1, 514/15, 514/2, 530/300, 530/328, 930/220, 930/223

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV envelope, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

8 Claims, 6 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMIC	Draw Des
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☐ 51. Document ID: US 5780036 A

L8: Entry 51 of 52

File: USPT

Jul 14, 1998

US-PAT-NO: 5780036

DOCUMENT-IDENTIFIER: US 5780036 A

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepatitis B virus

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.9&ref=8&dbname=PGPB,USPT,US...> 11/19/04

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/189.1; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/196.11,  
424/204.1, 424/227.1, 514/15, 514/2, 530/300, 530/327, 530/328, 530/403

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

7 Claims, 18 Drawing figures  
 Exemplary Claim Number: 1  
 Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KIMC	Draw Des
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☐ 52. Document ID: US 5679352 A

L8: Entry 52 of 52

File: USPT

Oct 21, 1997

US-PAT-NO: 5679352

DOCUMENT-IDENTIFIER: US 5679352 A

TITLE: Synthetic Haemophilus influenzae conjugate vaccine

DATE-ISSUED: October 21, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 424/256.1; 424/185.1, 424/190.1, 424/196.11, 435/34, 435/851, 530/324,  
530/325, 530/326, 530/387.1

ABSTRACT:

Synthetic peptides have an amino acid sequence corresponding to at least one antigenic determinant of at least one protein, usually a structural protein, particularly the P1, P2 and P6 protein, of Haemophilus influenzae (Hi), particularly type b, and are used as is, in chimeric T-B form, in lipidated form, linked to a carrier molecule, particularly a synthetic PRP molecule and/or polymerized to form molecular aggregates, in vaccines against Hi.

11 Claims, 28 Drawing figures  
 Exemplary Claim Number: 1  
 Number of Drawing Sheets: 28

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☐ 1. Document ID: US 20040191264 A1

Using default format because multiple data bases are involved.

L10: Entry 1 of 19

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/184.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 2. Document ID: US 20040047875 A1

L10: Entry 2 of 19

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040047875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040047875 A1

TITLE: Novel compounds

PUBLICATION-DATE: March 11, 2004

### INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 424/185.1; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

### ABSTRACT:

The invention provides BASB201 polypeptides and polynucleotides encoding BASB201 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Draw Des
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☐ 3. Document ID: US 20040037840 A1

L10: Entry 3 of 19

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040037840

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040037840 A1

TITLE: Novel therapeutic vaccine formulations

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Beier, Anne Mette	Horsholm		DK	
Gautam, Anand	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 514/55

ABSTRACT:

The present invention relates to a novel method and formulation for the induction of immune responses against polypeptide antigens. In particular, the invention provides a method and formulation for induction of cytotoxic T cell responses against a polypeptide antigen of choice. The formulations are characterized by containing chitosan in admixture with the polypeptide antigen, preferably in the form of microparticles that may be cross-linked.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Draw Des
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☐ 4. Document ID: US 20030185845 A1

L10: Entry 4 of 19

File: PGPB

Oct 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030185845

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030185845 A1

TITLE: Novel immunogenic mimetics of multimer proteins

PUBLICATION-DATE: October 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Klysner, Steen	Horsholm		DK	
Nielsen, Finn Stausholm	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	
Voldborg, Bjorn	Horsholm		DK	
Bratt, Tomas	Horsholm		DK	

## ABSTRACT:

The present invention relates to novel immunogenic variants of multimeric proteins such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TNF, TNF.alpha.). The variants are, besides from being immunogenic in the autologous host, also highly similar to the native 3D structure of the proteins from which they are derived. Certain variants are monomeric mimics of the multimers, where peptide linkers (inert or T helper epitope containing) ensure a spatial organisation of the monomer units that facilitate correct folding. A subset of variants are monomer TNF.alpha. variants that exhibit a superior capability of assembling into multimers with a high structural similarity to the native protein. Also disclosed are methods of treatment and production of the variants as well as DNA fragments, vectors, and host cells.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMO	Draw Des
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☐ 5. Document ID: US 20030157117 A1

L10: Entry 5 of 19

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

## ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protein (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.



☐ 6. Document ID: US 20030138454 A1

L10: Entry 6 of 19

File: PGPB

Jul 24, 2003

PGPUB-DOCUMENT-NUMBER: 20030138454  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20030138454 A1

TITLE: Vaccination method

PUBLICATION-DATE: July 24, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Adrian V. S.	Oxford		GB	
McShane, Helen	Oxford		GB	
Gilbert, Sarah C.	Oxford		GB	
Reece, William	Newtown		AU	
Schneider, Joerg	Barton		GB	

US-CL-CURRENT: 424/199.1; 424/184.1, 424/232.1, 424/248.1, 424/268.1, 424/273.1, 424/277.1, 435/320.1, 435/7.92, 530/326

ABSTRACT:

New methods and reagents for vaccination are described which generate a CD8 T cell immune response against malarial and other antigens such as viral and tumour antigens. Novel vaccination regimes are described which employ a priming composition and a boosting composition, the boosting composition comprising a non-replicating or replication-impaired pox virus vector carrying at least one CD8 T cell epitope which is also present in the priming composition. There is also provided a method of inducing a CD4+ T-cell response against a target antigen, by administering a composition comprising a source of one or more CD4+ T cell epitopes of the target antigen wherein the source of CD4+ epitopes is a non-replicating or replication impaired recombinant poxvirus vector. A method of inducing a combined CD4+ and CD8+ T cell response against a target antigen is also described herein.

☐ 7. Document ID: US 20020119162 A1

L10: Entry 7 of 19

File: PGPB

Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119162  
 PGPUB-FILING-TYPE: new  
 DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/185.1

ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw Des
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☐ 8. Document ID: US 20020044948 A1

L10: Entry 8 of 19

File: PGPB

Apr 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020044948

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020044948 A1

TITLE: Methods and compositions for co-stimulation of immunological responses to peptide antigens

PUBLICATION-DATE: April 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Khleif, Samir	Silverspring	MD	US	
Berzofsky, Jay	Bethesda	MD	US	

US-CL-CURRENT: 424/234.1; 424/184.1, 530/350

ABSTRACT:

Method for eliciting an immune response in a vertebrate subject are provided involving administration of a peptide antigen to the subject in a coordinated vaccination procedure that also involves administration of a non-viral vector that encodes a T cell co-stimulatory molecule. The peptide antigen contains at least one T cell epitope and may include an epitope of a tumor antigen or an antigen of a viral or non-viral pathogen. Epitopes from tumor antigens may represent fragments or partial amino acid sequences of p53, ras, rb, mcc, apc, dcc; nfl; VHL; MEN1, MEN2, MLM, Her-2neu, CEA, PSA; Mucl, Gp100, tyrosinase, or MART1 proteins, and often span a mutation identified in the tumor antigen. Various viral antigens may be selected, for example antigens identified in a human immunodeficiency virus (HIV), hepatitis B virus (HBV), herpes simplex virus (HSV) or human papilloma virus (HPV), for production of peptide antigens corresponding to immunogenic epitopes of the viral antigen. The peptide antigen is administered simultaneously or sequentially with

administration of the vector encoding the co-stimulatory molecules. Co-stimulatory molecules useful for coordinate administration with peptide antigens to elicit an enhanced T cell-mediated immune response may be selected from B7-1, B7-2, B7-3, ICAM1, ICAM2, LFA1 or LFA2. The peptide antigen and non-viral vector encoding the T cell co-stimulatory molecule are administered to proximal target sites selected from the same, or closely-adjacent, intradermal, subcutaneous, mucosal or intratumoral sites.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw. Des.
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☐ 9. Document ID: US 6676946 B2

L10: Entry 9 of 19

File: USPT

Jan 13, 2004

US-PAT-NO: 6676946

DOCUMENT-IDENTIFIER: US 6676946 B2

TITLE: Multiple antigen glycopeptide carbohydrate vaccine comprising the same and use thereof

DATE-ISSUED: January 13, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bay; Sylvie	Paris			FR
Cantacuzene; Daniele	Paris			FR
Leclerc; Claude	Paris			FR
Lo-Man; Richard	Paris			FR
Vicher-Guerre; Sophie	La Celle Saint Cloud			FR

US-CL-CURRENT: 424/196.11; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/194.1, 530/324, 530/350, 536/1.11

ABSTRACT:

A carbohydrate peptide conjugate containing: (i) a carrier containing a dendrimeric poly-lysine enabling multiple epitopes to be covalently attached thereto, (ii) at least one peptide containing one T epitope or several identical or different T-epitopes, (iii) at least one carbohydrate moiety which is tumor antigen, or a derivative thereof, containing a B epitope, provided it is not a sialoside, or several identical or different epitopes, wherein said conjugate containing at least 3-lysines and up to 15 lysine covalently linked to one another, and wherein: (a) to the NH.sub.2 and of at least two lysine residues is bound at least one carbohydrate residue being not a sialoside, optionally substituted and containing an epitope and wherein the peptide containing one T epitope is covalently bound to the end of said carbohydrate which induces immune responses.

3 Claims, 37 Drawing figures

Exemplary Claim Number: 1,3

Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw. Des.
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☐ 10. Document ID: US 6669945 B1

L10: Entry 10 of 19

File: USPT

Dec 30, 2003

US-PAT-NO: 6669945

DOCUMENT-IDENTIFIER: US 6669945 B1

TITLE: Universal T-cell epitopes for anti-malarial vaccines

DATE-ISSUED: December 30, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nardin; Elizabeth	Leonia	NJ		
Morena; Alberto	Santafe de Bogota	CO		

US-CL-CURRENT: 424/272.1; 424/191.1, 424/193.1, 530/300, 530/323, 530/326, 530/806, 530/822

ABSTRACT:

The present invention provides methods and compositions for eliciting protective immunity against malaria. In particular, the invention relates to universal T-cell epitopes that elicit T-cell responses in individuals of differing genetic backgrounds. Immunogenic compositions and vaccines including malaria-specific universal T-cell epitopes are disclosed.

24 Claims, 9 Drawing figures

Exemplary Claim Number: 1,9,15

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Index	Draw Des
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☐ 11. Document ID: US 6656472 B1

L10: Entry 11 of 19

File: USPT

Dec 2, 2003

US-PAT-NO: 6656472

DOCUMENT-IDENTIFIER: US 6656472 B1

TITLE: Multi oligosaccharide glycoconjugate bacterial meningitis vaccines

DATE-ISSUED: December 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Lindberg; Alf	Lyons			FR
Klein; Michel H.	Willowdale			CA

US-CL-CURRENT: 424/193.1; 424/197.11, 424/244.1, 424/249.1, 424/250.1, 530/322, 530/335, 530/345, 530/402, 530/403, 530/807

ABSTRACT:

Multivalent immunogenic molecules comprise a carrier molecule containing at least one functional T-cell epitope and multiple different carbohydrate fragments each linked to the carrier molecule and each containing at least one functional B-cell epitope. The carrier molecule imparts enhanced immunogenicity to the multiple carbohydrate fragments. The carbohydrate fragments may be capsular oligosaccharide fragments from *Streptococcus pneumoniae* which may be serotypes (1, 4, 5, 6B, 9V, 14, 18C, 19F or 23F), or *Neisseria meningitidis*, which may be serotype (A, B, C) W-135 or Y. Such oligosaccharide fragments may be sized from about 2 to about 5 kDa. Alternatively, the carbohydrate fragments may be fragments of carbohydrate-based tumor antigens, such as Globo H, Le.sup.Y or STn. The multivalent molecules may be produced by random conjugation or site-directed conjugation of the carbohydrate fragments to the carrier molecule. The multivalent molecules may be employed in vaccines or in the generation of antibodies for diagnostic applications.

8 Claims, 12 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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☐ 12. Document ID: US 6653461 B2

L10: Entry 12 of 19

File: USPT

Nov 25, 2003

US-PAT-NO: 6653461  
DOCUMENT-IDENTIFIER: US 6653461 B2

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of *Chlamydia trachomatis*

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 536/23.1; 424/184.1, 424/200.1, 435/320.1, 435/91.2, 530/300, 530/328, 530/350

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of *Chlamydia trachomatis* serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

9 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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☐ 13. Document ID: US 6399074 B1

L10: Entry 13 of 19

File: USPT

Jun 4, 2002

US-PAT-NO: 6399074

DOCUMENT-IDENTIFIER: US 6399074 B1

TITLE: Live attenuated salmonella vaccines to control avian pathogens

DATE-ISSUED: June 4, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roland; Kenneth L.	St. Louis	MO		

US-CL-CURRENT: 424/200.1; 424/184.1, 424/93.2, 435/252.1, 435/252.3, 435/252.8, 435/320.1

ABSTRACT:

A vaccine for protecting birds against infection by avian pathogenic gram negative microbes is disclosed. The vaccine is a recombinant Salmonella strain expressing O-antigen of an avian pathogenic gram negative microbe such as an E. coli strain that is pathogenic in poultry. The recombinant Salmonella strain also does not express Salmonella O-antigen. Methods of using the vaccine to immunize birds are also disclosed.

30 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 14. Document ID: US 6322789 B1

L10: Entry 14 of 19

File: USPT

Nov 27, 2001

US-PAT-NO: 6322789

DOCUMENT-IDENTIFIER: US 6322789 B1

TITLE: HLA-restricted hepatitis B virus CTL epitopes

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vitiello; Maria A.	La Jolla	CA		
Chesnut; Robert W.	Cardiff by the Sea	CA		

US-CL-CURRENT: 424/189.1; 424/193.1, 424/196.11, 424/227.1

ABSTRACT:

Cytotoxic T lymphocyte-stimulating peptides induce HLA-restricted responses to hepatitis B virus antigens. The peptides, derived from CTL epitopic regions of both

HBV surface and nucleocapsid antigens, are particularly useful in the treatment and prevention of HBV infection, including the treatment of chronically infected HBV carriers. The peptides can be formulated as HBV vaccines and pharmaceutical compositions, such as lipid-containing compositions for enhancing the HLA-restricted CTL responses. The peptides are also useful in diagnostic methods, such as predicting which HBV-infected individuals are prone to developing chronic infection.

22 Claims, 51 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 15. Document ID: US 6018019 A

L10: Entry 15 of 19

File: USPT

Jan 25, 2000

US-PAT-NO: 6018019

DOCUMENT-IDENTIFIER: US 6018019 A

TITLE: Synthetic Haemophilus influenzae conjugate vaccine

DATE-ISSUED: January 25, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 530/324; 424/185.1, 424/190.1, 424/256.1, 435/851, 530/325, 530/326, 530/327

ABSTRACT:

The present invention provides immunogenic synthetic peptides which are useful alone or in PRP-conjugates in vaccines against Hemophilus influenza infection. Modifications are possible within the scope of the invention.

5 Claims, 28 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 16. Document ID: US 5993819 A

L10: Entry 16 of 19

File: USPT

Nov 30, 1999

US-PAT-NO: 5993819

DOCUMENT-IDENTIFIER: US 5993819 A

TITLE: Synthetic vaccine for protection against human immunodeficiency virus infection

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Haynes; Barton F.	Durham	NC		
Palker; Thomas J.	Durham	NC		

US-CL-CURRENT: 424/188.1; 424/184.1, 424/204.1, 424/208.1, 530/324, 530/325, 530/326, 530/350

ABSTRACT:

The present invention relates to immunogenic preparations of peptides comprising amino acid sequences corresponding to antigenic determinants of the envelope glycoprotein of HIV, covalently coupled, directly or through a spacer molecule, to carrier molecules suitable for vaccination of mammals.

2 Claims, 52 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 35

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	RMK	Draw Des
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☐ 17. Document ID: US 5972349 A

L10: Entry 17 of 19

File: USPT

Oct 26, 1999

US-PAT-NO: 5972349

DOCUMENT-IDENTIFIER: US 5972349 A

TITLE: Synthesis of polyribosylribitol phosphate oligosaccharides

DATE-ISSUED: October 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 424/256.1; 424/184.1, 424/193.1, 424/194.1, 514/109, 514/112, 514/120, 514/125, 514/129, 514/139, 514/143, 514/183, 514/23, 514/25, 514/506, 514/54, 514/75, 514/99, 536/1.11, 536/117, 536/123.1, 536/126, 536/127, 536/18.7, 536/4.1

ABSTRACT:

Polyribosylribitol phosphate oligosaccharides are produced in a multistep process. The compound of the formula: ##STR1## wherein R.sub.1 is a first protecting group and R.sub.2 is a second protecting group, is coupled to a solid polyethylene glycol monomethyl ether (PEG) support. Following removal of the first protecting group, the resulting compound is coupled with a repeating unit for chain elongation of the



formula: ##STR2## The protecting group is removed from the phosphorus atom and the steps of removing the first protecting group, coupling with the repeating unit is repeated until the desired number of repeating units in the oligomer has been terminated. The oligomer then is terminated with a chain terminating molecule of the formula: ##STR3## wherein m is an integer and R.sub.3 is a third protecting group. The resulting PEG-bound protected oligomer is a new product and the oligomer may be cleaved from the support and processed to provide a chemically-reactive functional group for binding the polysaccharide oligomer to a carrier molecule.

8 Claims, 28 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des.
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☐ 18. Document ID: US 5780036 A

L10: Entry 18 of 19

File: USPT

Jul 14, 1998

US-PAT-NO: 5780036  
DOCUMENT-IDENTIFIER: US 5780036 A

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepatitis B virus

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/189.1; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/196.11,  
424/204.1, 424/227.1, 514/15, 514/2, 530/300, 530/327, 530/328, 530/403

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

7 Claims, 18 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Draw. Des.
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☐ 19. Document ID: US 5679352 A

L10: Entry 19 of 19

File: USPT

Oct 21, 1997

US-PAT-NO: 5679352  
DOCUMENT-IDENTIFIER: US 5679352 A

TITLE: Synthetic Haemophilus influenzae conjugate vaccine

DATE-ISSUED: October 21, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 424/256.1; 424/185.1, 424/190.1, 424/196.11, 435/34, 435/851, 530/324, 530/325, 530/326, 530/387.1

ABSTRACT:

Synthetic peptides have an amino acid sequence corresponding to at least one antigenic determinant of at least one protein, usually a structural protein, particularly the P1, P2 and P6 protein, of Haemophilus influenzae (Hi), particularly type b, and are used as is, in chimeric T-B form, in lipidated form, linked to a carrier molecule, particularly a synthetic PRP molecule and/or polymerized to form molecular aggregates, in vaccines against Hi.

11 Claims, 28 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Drawings	Draw. Des.
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Search Results - Record(s) 1 through 14 of 14 returned.

☐ 1. Document ID: US 20030064916 A1

Using default format because multiple data bases are involved.

L12: Entry 1 of 14

File: PGPB

Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030064916  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20030064916 A1

TITLE: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
SHERMAN, LINDA A.	LA JOLLA	CA	US	

US-CL-CURRENT: [514/4](#); [435/7.1](#), [514/8](#), [530/300](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">Claims</a>	<a href="#">MMMC</a>	<a href="#">Draw. Des.</a>
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☐ 2. Document ID: US 6713450 B2

L12: Entry 2 of 14

File: USPT

Mar 30, 2004

US-PAT-NO: 6713450  
DOCUMENT-IDENTIFIER: US 6713450 B2

TITLE: Synthetic immunogenic but non-amyloidogenic peptides homologous to amyloid .beta. for induction of an immune response to amyloid .beta. and amyloid deposits

DATE-ISSUED: March 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Frangione; Blas	New York	NY		
Wisniewski; Thomas	Staten Island	NY		
Sigurdsson; Einar M.	New York	NY		

US-CL-CURRENT: [514/12](#); [424/198.1](#), [530/300](#)

ABSTRACT:

The present invention relates to synthetic immunogenic but non-amyloidogenic peptides homologous to amyloid .beta. which can be used alone or conjugated to an

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.13&ref=12&dbname=PGPB,USPT,U...> 11/19/04

immunostimulatory molecule in an immunizing composition for inducing an immune response to amyloid .beta. peptides and amyloid deposits.

30 Claims, 13 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw Des
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☐ 3. Document ID: US 6685947 B1

L12: Entry 3 of 14

File: USPT

Feb 3, 2004

US-PAT-NO: 6685947  
DOCUMENT-IDENTIFIER: US 6685947 B1

TITLE: T helper cell epitopes

DATE-ISSUED: February 3, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jackson; David Charles	Victoria			AU
Ghosh; Souravi	Victoria			AU
Walker; John	Victoria			AU

US-CL-CURRENT: 424/213.1; 424/186.1, 424/204.1, 424/278.1, 435/343.1, 435/343.2,  
435/69.1, 530/300

ABSTRACT:

The present invention provides T helper cells epitopes and compositions for use in inducing an immune response comprising at least one of these epitopes. The epitopes are contained within a peptide sequence selected from the group consisting of SSKTQHTHTQDRPPQPS (SEQ ID NO:1); QPSTELEETRTSRARHS (SEQ ID NO:2); RHSTTSAQRSTHYDPRT (SEQ ID NO:3); PRTSDRPVSYTMNRTRS (SEQ ID NO:4); TRSRKQTSRHLKNIPVH (SEQ ID NO:5); SHQYLVIKLIPNASLIE (SEQ ID NO:6); IGTDNVHYKIMTRPSHQ (SEQ ID NO:7); YKIMTRPSHQYLVIKLI (SEQ ID NO:8); KLIPNASLIENCTKAEI (SEQ ID NO:9); AELGEYEKLLNSVLEPI (SEQ ID NO:10); KLLNSVLEPINQALTM (SEQ ID NO:11); EPINQALTLMTKNVKPL (SEQ ID NO:12); FAGVVLGVALGVATAA (SEQ ID NO:13); GVALGVATAAQITAGIA (SEQ ID NO:14); TMQITAGIALHQSNLN (SEQ ID NO:15); GIALHQSNLNAQAIQSL (SEQ ID NO:16); NLNAQAIQSLRSLTLEQS (SEQ ID NO:17); QSLRSLTLEQSNKAIEEI (SEQ ID NO:18); EQSNKAIEEIREATQET (SEQ ID NO:19); TELLSIFGPSLRDPISA (SEQ ID NO:20); PRYIATNGYLISNFDSE (SEQ ID NO:21); CIRGDTSSCARTLVSGT (SEQ ID NO:22); DESSCVFVSESAICSQN (SEQ ID NO:23); TSTIINQSPDKLLTFIA (SEQ ID NO:24); SPDKLLTFIASDTCPLV (SEQ ID NO:25) and SGRRQRRFAGVVLGVA (SEQ ID NO:26).

16 Claims, 4 Drawing figures  
Exemplary Claim Number: 2  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw Des
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☐ 4. Document ID: US 6669945 B1

US-PAT-NO: 6669945

DOCUMENT-IDENTIFIER: US 6669945 B1

TITLE: Universal T-cell epitopes for anti-malarial vaccines

DATE-ISSUED: December 30, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nardin; Elizabeth	Leonia	NJ		
Morena; Alberto	Santafe de Bogota	CO		

US-CL-CURRENT: 424/272.1; 424/191.1, 424/193.1, 530/300, 530/323, 530/326, 530/806, 530/822

## ABSTRACT:

The present invention provides methods and compositions for eliciting protective immunity against malaria. In particular, the invention relates to universal T-cell epitopes that elicit T-cell responses in individuals of differing genetic backgrounds. Immunogenic compositions and vaccines including malaria-specific universal T-cell epitopes are disclosed.

24 Claims, 9 Drawing figures

Exemplary Claim Number: 1,9,15

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMID	Draw Des
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☐ 5. Document ID: US 6663871 B1

L12: Entry 5 of 14

File: USPT

Dec 16, 2003

US-PAT-NO: 6663871

DOCUMENT-IDENTIFIER: US 6663871 B1

TITLE: Methods and reagents for vaccination which generate a CD8 T cell immune response

DATE-ISSUED: December 16, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McMichael; Andrew	Beckley			GB
Hill; Adrian V. S.	Old Headington			GB
Gilbert; Sarah C.	Headington			GB
Schneider; Jorg	Barton			GB
Plebanski; Magdalena	Melbourne			AU
Hanke; Tomas	Old Marston			GB
Smith; Geoffrey L.	Oxford			GB
Blanchard; Tom	Banjul			ZA

US-CL-CURRENT: 424/199.1; 424/185.1, 435/320.1, 530/300

ABSTRACT:

New methods and reagents for vaccination are described which generate a CD8 T cell immune response against malarial and other antigens such as viral and tumour antigens. Novel vaccination regimes are described which employ a priming composition and a boosting composition, the boosting composition comprising a non-replicating or replication-impaired pox virus vector carrying at least one CD8 T cell epitope which is also present in the priming composition.

20 Claims, 33 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw. Des.
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☐ 6. Document ID: US 6653461 B2

L12: Entry 6 of 14

File: USPT

Nov 25, 2003

US-PAT-NO: 6653461

DOCUMENT-IDENTIFIER: US 6653461 B2

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of Chlamydia trachomatis

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 536/23.1; 424/184.1, 424/200.1, 435/320.1, 435/91.2, 530/300, 530/328, 530/350

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

9 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw. Des.
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☐ 7. Document ID: US 6464980 B1

L12: Entry 7 of 14

File: USPT

Oct 15, 2002

US-PAT-NO: 6464980  
DOCUMENT-IDENTIFIER: US 6464980 B1

TITLE: MAGE-1 c-terminal immunogenic peptides

DATE-ISSUED: October 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fikes; John D.	San Diego	CA		
Livingston; Brian D.	San Diego	CA		
Sette; Alessandro D.	La Jolla	CA		
Sidney; John C.	La Jolla	CA		

US-CL-CURRENT: 424/185.1; 424/184.1, 424/277.1, 514/14, 514/15, 514/2, 514/21,  
530/300, 530/324, 530/326, 530/327, 530/328

ABSTRACT:

The complete nucleotide and amino acid sequences of the human MAGE-1 antigen are provided. Peptides from residues of the C-terminal are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against MAGE-1 antigens. The peptides are particularly useful in methods for stimulating the immune response of individuals against MAGE-1 antigens associated with melanomas.

5 Claims, 10 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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☐ 8. Document ID: US 6294322 B1

L12: Entry 8 of 14

File: USPT

Sep 25, 2001

US-PAT-NO: 6294322  
DOCUMENT-IDENTIFIER: US 6294322 B1

TITLE: Multideterminant peptides that elicit helper T-lymphocyte cytotoxic T-lymphocyte and neutralizing antibody responses against HIV-1

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendleton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kita-gun			JP

US-CL-CURRENT: 435/5; 424/188.1, 424/208.1, 530/300, 530/324

ABSTRACT:

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.13&ref=12&dbname=PGPB,USPT,U...> 11/19/04

Peptide constructs comprised of multideterminant T helper peptides from the envelope glycoprotein of HIV previously identified to induce proliferative responses in four different haplotypes of mice and IL-2 responses in 52-73% of HIV positive, flu positive patients (cluster peptides), were co-linearly synthesized with the peptide 18 of the V3 loop of HIV-1 gp 160, corresponding to the principal neutralizing determinant of HIV-IIIB and also shown to contain a dominant CTL epitope. Cognate help for peptide 18 antibody was elicited following a single immunization in all strains of mice which had previously responded to a T cell epitope encompassed by the peptides. In two strains of mice, the level of neutralizing antibody achieved was comparable to levels adequate for protection from homologous viral challenge in chimpanzees. After a single boost, much higher antibody titers for 90% neutralization in the range of 1:1000 to 1:16,000 were achieved. Spleen cells from mice of three distinct MHC haplotypes sharing the D.sup.d class I MHC molecule but with different class II molecules, immunized with the compound peptides, exhibited enhanced gp160-specific CTL activity.

5 Claims, 49 Drawing figures  
Exemplary Claim Number: 1,2  
Number of Drawing Sheets: 23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMHC	Drawn Des
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☐ 9. Document ID: US 6225443 B1

L12: Entry 9 of 14

File: USPT

May 1, 2001

US-PAT-NO: 6225443

DOCUMENT-IDENTIFIER: US 6225443 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of chlamydia trachomatis

DATE-ISSUED: May 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 530/328; 435/320.1, 435/6, 435/91.2, 530/300, 530/350, 536/23.1, 536/24.32

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

2 Claims, 0 Drawing figures  
Exemplary Claim Number: 1



☐ 10. Document ID: US 6214347 B1

L12: Entry 10 of 14

File: USPT

Apr 10, 2001

US-PAT-NO: 6214347

DOCUMENT-IDENTIFIER: US 6214347 B1

TITLE: Multideterminant peptides that elicit helper T-lymphocyte, cytotoxic T lymphocyte and neutralizing antibody responses against HIV-1

DATE-ISSUED: April 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendleton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kagawa			JP

US-CL-CURRENT: 424/188.1; 424/208.1, 435/69.7, 530/300, 530/324, 530/325, 530/326

ABSTRACT:

The invention is directed to peptides of the HIV-1 envelope protein presenting multiple immune determinants. The peptide elicits both humoral and cell-mediated immune responses in mice having a variety of MHC types. In other embodiments, the invention is directed to immunogens composed of the peptides and methods for immunization employing them.

1 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 17

☐ 11. Document ID: US 6107021 A

L12: Entry 11 of 14

File: USPT

Aug 22, 2000

US-PAT-NO: 6107021

DOCUMENT-IDENTIFIER: US 6107021 A

TITLE: Synthetic peptide vaccines for foot-and-mouth disease

DATE-ISSUED: August 22, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Chang Yi	Cold Spring Harbor	NY		
Shen; Ming	Flushing	NY		

## ABSTRACT:

The present invention relates to the use of a peptide composition as an immunogen, with each peptide contained therein comprising a target antigenic site derived from the VP1 capsid protein of Foot-and-Mouth Disease Virus (FMDV). The antigenic site is covalently linked to a helper T cell epitope and, preferably, to other immunostimulatory sequences, preferably by conventional peptide bond(s) through direct synthesis, for the prevention of FMDV infection and eradication of Foot-and-Mouth Disease (FMD). More particularly, the present invention relates to the use of such peptide composition as an immunogen to elicit the production in animals including swine, cattle, sheep, goats and susceptible wild species, of high titer polyclonal antibodies that can effectively neutralize, in vitro, multiple strains or serotypes of FMDV, and to the use of such composition as a vaccine to prevent, and/or reduce the incidence of, FMDV infection regardless of serotype, and thus affect the eradication of FMDV. The present invention also relates to the peptides used in the compositions, and to immunoassays and/or diagnostic kits containing one or more of these peptides, and methods of diagnosing FMDV in mammals using such materials.

10 Claims, 4 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FIGS	Drawing Des
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☐ 12. Document ID: US 6090388 A

L12: Entry 12 of 14

File: USPT

Jul 18, 2000

US-PAT-NO: 6090388

DOCUMENT-IDENTIFIER: US 6090388 A

TITLE: Peptide composition for prevention and treatment of HIV infection and immune disorders

DATE-ISSUED: July 18, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Chang Yi	Cold Spring Harbor	NY		

US-CL-CURRENT: 424/185.1; 424/186.1, 424/189.1, 424/194.1, 424/236.1, 530/300, 530/323, 530/324, 530/326

## ABSTRACT:

The invention provides peptides comprising a sequence homologous to a portion of the CDR-2 like domain of CD4, covalently linked to a helper T cell epitope, and optionally to other immunostimulatory sequences as well. The invention provides for the use of such peptides as immunogens to elicit the production in mammals of high titer polyclonal auto-antibodies, which are specific to CD4 surface complex. These auto-antibodies prevent binding of HIV viral particles to CD4+ cells. The peptides are useful in pharmaceutical compositions, to provide an immunotherapy for HIV infection and to protect against HIV infection.

23 Claims, 1 Drawing figures

Exemplary Claim Number: 1  
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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☐ 13. Document ID: US 5788969 A

L12: Entry 13 of 14

File: USPT

Aug 4, 1998

US-PAT-NO: 5788969

DOCUMENT-IDENTIFIER: US 5788969 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Peptides for inducing cytotoxic T lymphocyte responses hepatitis B virus

DATE-ISSUED: August 4, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/189.1; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/196.11,  
424/204.1, 424/227.1, 514/15, 514/2, 530/300, 530/328, 930/220, 930/223

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV envelope, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

8 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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☐ 14. Document ID: US 5780036 A

L12: Entry 14 of 14

File: USPT

Jul 14, 1998

US-PAT-NO: 5780036

DOCUMENT-IDENTIFIER: US 5780036 A

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepattis B virus

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: [424/189.1](#); [424/184.1](#), [424/185.1](#), [424/186.1](#), [424/193.1](#), [424/196.11](#),  
[424/204.1](#), [424/227.1](#), [514/15](#), [514/2](#), [530/300](#), [530/327](#), [530/328](#), [530/403](#)

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

7 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw. Des.
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Terms	Documents
L11 AND T helper cell epitope	14

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☐ 1. Document ID: US 20030064916 A1

Using default format because multiple data bases are involved.

L13: Entry 1 of 8

File: PGPB

Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030064916

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030064916 A1

TITLE: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
SHERMAN, LINDA A.	LA JOLLA	CA	US	

US-CL-CURRENT: [514/4](#); [435/7.1](#), [514/8](#), [530/300](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMO	Draw Des
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☐ 2. Document ID: US 6685947 B1

L13: Entry 2 of 8

File: USPT

Feb 3, 2004

US-PAT-NO: 6685947

DOCUMENT-IDENTIFIER: US 6685947 B1

TITLE: T helper cell epitopes

DATE-ISSUED: February 3, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jackson; David Charles	Victoria			AU
Ghosh; Souravi	Victoria			AU
Walker; John	Victoria			AU

US-CL-CURRENT: [424/213.1](#); [424/186.1](#), [424/204.1](#), [424/278.1](#), [435/343.1](#), [435/343.2](#), [435/69.1](#), [530/300](#)

ABSTRACT:

The present invention provides T helper cells epitopes and compositions for use in inducing an immune response comprising at least one of these epitopes. The epitopes are contained within a peptide sequence selected from the group consisting of

SSKTQHTTQQDRPPQPS (SEQ ID NO:1); QPSTELEETRTSRARHS (SEQ ID NO:2); RHSTSAQRSTHYDPRT (SEQ ID NO:3); PRTSDRPVSYTMNRTRS (SEQ ID NO:4); TRSRKQTSRHLKNIPVH (SEQ ID NO:5); SHQYLVIKLIPNASLIE (SEQ ID NO:6); IGTDNVHYKIMTRPSHQ (SEQ ID NO:7); YKIMTRPSHQYLVIKLI (SEQ ID NO:8); KLIPNASLIENCTKAEL (SEQ ID NO:9); AELGEYEKLLNSVLEPI (SEQ ID NO:10); KLLNSVLEPINQALTM (SEQ ID NO:11); EPINQALTMKTNVKPL (SEQ ID NO:12); FAGVVLGVALGVATAA (SEQ ID NO:13); GVALGVATAAQITAGIA (SEQ ID NO:14); TMQITAGIALHQSNN (SEQ ID NO:15); GIALHQSNNLAQAIQSL (SEQ ID NO:16); NLNAQAIQSLRTSLEQS (SEQ ID NO:17); QSLRTSLEQSNAKAEI (SEQ ID NO:18); EQSNAKAEIIREATQET (SEQ ID NO:19); TELLSIFGPSLRDPISA (SEQ ID NO:20); PRYIATNGYLISNFDES (SEQ ID NO:21); CIRGDTSSCARTLVSGT (SEQ ID NO:22); DESSCVFVSESAICSQN (SEQ ID NO:23); TSTIINQSPDKLLTFIA (SEQ ID NO:24); SPDKLLTFIASDTCPLV (SEQ ID NO:25) and SGRRQRRFAGVVLGVA (SEQ ID NO:26).

16 Claims, 4 Drawing figures  
Exemplary Claim Number: 2  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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### ☐ 3. Document ID: US 6669945 B1

L13: Entry 3 of 8

File: USPT

Dec 30, 2003

US-PAT-NO: 6669945  
DOCUMENT-IDENTIFIER: US 6669945 B1

TITLE: Universal T-cell epitopes for anti-malarial vaccines

DATE-ISSUED: December 30, 2003

#### INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nardin; Elizabeth	Leonia	NJ		
Morena; Alberto	Santafe de Bogota	CO		

US-CL-CURRENT: 424/272.1; 424/191.1, 424/193.1, 530/300, 530/323, 530/326, 530/806, 530/822

#### ABSTRACT:

The present invention provides methods and compositions for eliciting protective immunity against malaria. In particular, the invention relates to universal T-cell epitopes that elicit T-cell responses in individuals of differing genetic backgrounds. Immunogenic compositions and vaccines including malaria-specific universal T-cell epitopes are disclosed.

24 Claims, 9 Drawing figures  
Exemplary Claim Number: 1,9,15  
Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMO	Draw Des
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### ☐ 4. Document ID: US 6653461 B2

L13: Entry 4 of 8

File: USPT

Nov 25, 2003

US-PAT-NO: 6653461  
DOCUMENT-IDENTIFIER: US 6653461 B2

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of Chlamydia trachomatis

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 536/23.1; 424/184.1, 424/200.1, 435/320.1, 435/91.2, 530/300, 530/328, 530/350

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

9 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Origin	Front	Review	Classification	Date	Reference			Claims	MMIC	Draw Des
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☐ 5. Document ID: US 6294322 B1

L13: Entry 5 of 8

File: USPT

Sep 25, 2001

US-PAT-NO: 6294322  
DOCUMENT-IDENTIFIER: US 6294322 B1

TITLE: Multideterminant peptides that elicit helper T-lymphocyte cytotoxic T-lymphocyte and neutralizing antibody responses against HIV-1

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendleton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kita-gun			JP

US-CL-CURRENT: 435/5; 424/188.1, 424/208.1, 530/300, 530/324

ABSTRACT:

Peptide constructs comprised of multideterminant T helper peptides from the envelope  
<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.14&ref=13&dbname=PGPB,USPT,U...> 11/19/04

glycoprotein of HIV previously identified to induce proliferative responses in four different haplotypes of mice and IL-2 responses in 52-73% of HIV positive, flu positive patients (cluster peptides), were co-linearly synthesized with the peptide 18 of the V3 loop of HIV-1 gp 160, corresponding to the principal neutralizing determinant of HIV-IIIIB and also shown to contain a dominant CTL epitope. Cognate help for peptide 18 antibody was elicited following a single immunization in all strains of mice which had previously responded to a T cell epitope encompassed by the peptides. In two strains of mice, the level of neutralizing antibody achieved was comparable to levels adequate for protection from homologous viral challenge in chimpanzees. After a single boost, much higher antibody titers for 90% neutralization in the range of 1:1000 to 1:16,000 were achieved. Spleen cells from mice of three distinct MHC haplotypes sharing the D.sup.d class I MHC molecule but with different class II molecules, immunized with the compound peptides, exhibited enhanced gp160-specific CTL activity.

5 Claims, 49 Drawing figures  
Exemplary Claim Number: 1,2  
Number of Drawing Sheets: 23

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FWMC	Draw Des
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☐ 6. Document ID: US 6225443 B1

L13: Entry 6 of 8

File: USPT

May 1, 2001

US-PAT-NO: 6225443

DOCUMENT-IDENTIFIER: US 6225443 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of chlamydia trachomatis

DATE-ISSUED: May 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 530/328; 435/320.1, 435/6, 435/91.2, 530/300, 530/350, 536/23.1, 536/24.32

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

2 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	FWMC	Draw Des
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☐ 7. Document ID: US 6214347 B1

L13: Entry 7 of 8

File: USPT

Apr 10, 2001

US-PAT-NO: 6214347

DOCUMENT-IDENTIFIER: US 6214347 B1

TITLE: Multideterminant peptides that elicit helper T-lymphocyte, cytotoxic T lymphocyte and neutralizing antibody responses against HIV-1

DATE-ISSUED: April 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendleton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kagawa			JP

US-CL-CURRENT: 424/188.1; 424/208.1, 435/69.7, 530/300, 530/324, 530/325, 530/326

ABSTRACT:

The invention is directed to peptides of the HIV-1 envelope protein presenting multiple immune determinants. The peptide elicits both humoral and cell-mediated immune responses in mice having a variety of MHC types. In other embodiments, the invention is directed to immunogens composed of the peptides and methods for immunization employing them.

1 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 17

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 8. Document ID: US 5780036 A

L13: Entry 8 of 8

File: USPT

Jul 14, 1998

US-PAT-NO: 5780036

DOCUMENT-IDENTIFIER: US 5780036 A

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepatitis B virus

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/189.1; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/196.11, 424/204.1, 424/227.1, 514/15, 514/2, 530/300, 530/327, 530/328, 530/403

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

7 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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L12 AND L9	8

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☐ 1. Document ID: US 20040230380 A1

Using default format because multiple data bases are involved.

L15: Entry 1 of 70

File: PGPB

Nov 18, 2004

PGPUB-DOCUMENT-NUMBER: 20040230380

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040230380 A1

TITLE: Novel proteins with altered immunogenicity

PUBLICATION-DATE: November 18, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chirino, Arthur J.	Camarillo	CA	US	
Dahiyat, Bassil I.	Altadena	CA	US	
Desjarlais, John Rudolph	Pasadena	CA	US	
Marshall, Shannon Alicia	San Francisco	CA	US	

US-CL-CURRENT: 702/19

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMO	Draw Des
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☐ 2. Document ID: US 20040223965 A1

L15: Entry 2 of 70

File: PGPB

Nov 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040223965

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040223965 A1

TITLE: Hepatitis b core antigen fusion proteins

PUBLICATION-DATE: November 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gehin, Annick	Leeds		GB	
Gilbert, Robert	Headington		GB	
Stuart, David	Headington		GB	
Rowlands, David	Leeds		GB	

US-CL-CURRENT: 424/130.1

ABSTRACT:

The hepatitis B virus (HBV) capsid is made up of a single species of protein called the core antigen (HBcAg) which self-assembles into particles. The particles are highly immunogenic and are able to present heterologous epitopes to the immune system when the epitopes are inserted into a surface-exposed region of the particles called the "el loop". The structural building blocks of the particles are tightly associated dimers of HBcAg in which the adjacent el loops are closely juxtaposed. It is proposed that sequences inserted into the el loop are conformationally restrained in the assembled particles when presented in monomeric core protein. The invention seeks to solve this problem by covalently linking core proteins as tandem copies, e.g., as dimers, so that insertions can be made independently in each copy. This is particularly useful for insertion of large sequences into the el loop because it allows such sequences to be inserted into just one copy of the core protein per tandem repeat, thereby reducing potential conformational clashes in assembly. Alternatively, a different sequence may be inserted into each el loop of a tandem repeat, thus increasing the flexibility of HBcAg particles as an epitope delivery system.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Draw Des
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☐ 3. Document ID: US 20040191264 A1

L15: Entry 3 of 70

File: PGPB

Sep 30, 2004

PGPUB-DOCUMENT-NUMBER: 20040191264  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040191264 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: September 30, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/184.1

ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunisation and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Draw Des
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☐ 4. Document ID: US 20040176283 A1

L15: Entry 4 of 70

File: PGPB

Sep 9, 2004

PGPUB-DOCUMENT-NUMBER: 20040176283  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040176283 A1

TITLE: Methods and compositions for the design of synthetic vaccines

PUBLICATION-DATE: September 9, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Robinson, John A.	Wermtswil		CH	
Pluschke, Gerd	Bad Kronzingen		DE	
Moehle, Kerstin	Wettswil		CH	
Pfeiffer, Bernhard	Zurich		CH	
Zurbriggen, Rinaldo	Schmitten		CH	
Glueck, Reinhart	Bern		CH	

US-CL-CURRENT: 514/9; 514/12

ABSTRACT:

Conformationally constrained peptidomimetics of the Circumsporozoite protein found on the surface of malaria parasites, as well as methods of making the same are provided. These peptidomimetics can be linked to human compatible delivery vehicles for the generation of protective immune responses against malaria.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOO	Draw Des
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☐ 5. Document ID: US 20040171805 A1

L15: Entry 5 of 70

File: PGPB

Sep 2, 2004

PGPUB-DOCUMENT-NUMBER: 20040171805  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040171805 A1

TITLE: Novel compounds

PUBLICATION-DATE: September 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 530/350

ABSTRACT:

The invention provides BASB223 and BASB224 polypeptides and polynucleotides encoding  
<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

BASB223 and BASB224 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw. Des.
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☐ 6. Document ID: US 20040156838 A1

L15: Entry 6 of 70

File: PGPB

Aug 12, 2004

PGPUB-DOCUMENT-NUMBER: 20040156838  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040156838 A1

TITLE: Method for down-regulating ige

PUBLICATION-DATE: August 12, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Klysner, Steen	Horsholm		DK	
Von Hoegen, Paul	Hennigsdorf		DE	
Voldborg, Bjorn	Horsholm		DK	
Gautam, Anand	Niva		DK	

US-CL-CURRENT: 424/130.1; 514/44

ABSTRACT:

The present invention discloses methods for immunizing against autologous (self) Immunoglobulin E (IgE). In particular, the invention discloses methods for inducing cytotoxic T-lymphocytes that will specifically down-regulate B-cells producing autologous IgE, notably by means of nucleic acid vaccination or live vaccination. Also disclosed are methods for inducing antibodies reactive with autologous IgE as well as methods for inducing a combined antibody and CTK response specific for IgE. The invention also discloses specific immunogenic protein constructs, nucleic acids encoding these as well as various formulations and tools for preparing the vaccines, including vectors and transformed host cells.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Draw. Des.
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☐ 7. Document ID: US 20040141958 A1

L15: Entry 7 of 70

File: PGPB

Jul 22, 2004

PGPUB-DOCUMENT-NUMBER: 20040141958  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040141958 A1

TITLE: Novel methods for therapeutic vaccination

PUBLICATION-DATE: July 22, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Steinaa, Lucilla	Copenhagen V		DK	
Mouritsen, Soren	Birkerod		DK	
Gautam, Anand	Hillerod		DK	
Haaning, Jesper	Birkerod		DK	
Dalum, Iben	Horsholm		DK	
Birk, Peter	Copenhagen O		DK	
Leach, Dana	Hillerod		DK	
Nielsen, Klaus Gregorius	Sorborg		DK	
Karlsson, Gunilla	Copenhagen O		DK	

US-CL-CURRENT: 424/93.21; 514/44

## ABSTRACT:

A method is disclosed for inducing cell-mediated immunity against cellular antigens. More specifically, the invention provides for a method for inducing cytotoxic T-lymphocyte immunity against weak antigens, notably self-proteins. The method entails that antigen presenting cells are induced to present at least one CTL epitope of the weak antigen and at the same time presenting at least one foreign T-helper lymphocyte epitope. In a preferred embodiment, the antigen is a cancer specific antigen, e.g. PSM, Her2, or FGF8b. The method can be exercised by using traditional polypeptide vaccination, but also by using live attenuated vaccines or nucleic acid vaccination. The invention furthermore provides immunogenic analogues of PSM, Her2 and FGF8b, as well as nucleic acid molecules encoding these analogues. Also vectors and transformed cells are disclosed. The invention also provides for a method for identification of immunogenic analogues of weak or non-immunogenic antigens.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 8. Document ID: US 20040091479 A1

L15: Entry 8 of 70

File: PGPB

May 13, 2004

PGPUB-DOCUMENT-NUMBER: 20040091479

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040091479 A1

TITLE: T-cell epitope of the papillomavirus l1 and e7 protein and use thereof in diagnostics and therapy

PUBLICATION-DATE: May 13, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nieland, John	Stockdorf		DE	
Kaufmann, Andreas	Jena		DE	
Kather, Angela	Jena		DE	
Schinz, Manuela	Ranis		DE	

US-CL-CURRENT: 424/144.1; 435/320.1, 435/372, 435/69.1, 530/350, 536/23.5

## ABSTRACT:

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

The present invention relates to a papilloma virus T cell epitope having an amino acid sequence 1 YLPPVPVSKVVSTDEYVART, STDEYVARTNIYYHAGTSRL, VGHPYFPIKKPNNKILVVK, GLQYRVFRIHLDPNKFGEFP, WACVGVEVGRGQPLGVGISG, QPLGVGISGHPLLNLKDDTE, QLCLIGCKPPIGEHWGKGSP, LELINTVIQDGMVDTGFGA, DMVDTGFGANDFTTLQANKS, VTVVDTRSTNNSLCAAIST, TTYKNTNFKEYLRHGEEYDL, IFQLCKITILTADVMYIYHSM, PPPGGTLEDTYRFVTSQAIA, RFVTSQAIAACQKHTPPAPKB, LKKYTFWEVNLKEKFSADLD, PLGRKFLLQAGMHGDTPTLH, YCYEQLNDSSEEEDEIDGPA, VGNPYFRVPAGGGGNKDIPK, GGNKQDIPKVSAYQYRVERV, SIYNPETQRLVWACAGVEIG, IYNPETQRL, PDYLQMSADPYGDSMFFCLR, GDSMFFCLRREQLFARHFWN, NNGVCWHNQLEFVTVDTRRS, PPPPTTSLVDTYRFVQSVAI, YRFVQSVAITCQKDAAPAEN, PYDKLKFWNVDLKEKFSIDL, YPLGRKFLVQAGMHGPKATL, MHGPKATLQDIVLHLEPQNE, VDLLCHEQLSDSEEENDEID, SEEENDEIDGVNHQHLPARR, SSADDLPAFQQFLNLTLSFV NTDDYVTRTSIFYHAGSSRL, FYHAGSSRLTVGNPYFRVP, PQRHTMLCMCKCEARIKLV, GMHGPKATL, HGPKATLQDI, MHGPKATL, or FQQLFLNTL

and/or a functionally active variant thereof, and to its use in diagnosis and therapy.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 9. Document ID: US 20040067238 A1

L15: Entry 9 of 70

File: PGPB

Apr 8, 2004

PGPUB-DOCUMENT-NUMBER: 20040067238  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040067238 A1

TITLE: Novel compounds

PUBLICATION-DATE: April 8, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 424/190.1

ABSTRACT:

The invention provides BASB206 polypeptides and polynucleotides encoding BASB206 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Des
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☐ 10. Document ID: US 20040059090 A1

L15: Entry 10 of 70

File: PGPB

Mar 25, 2004

PGPUB-DOCUMENT-NUMBER: 20040059090  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040059090 A1

TITLE: Novel compounds



PUBLICATION-DATE: March 25, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 530/350; 424/190.1, 435/252.3, 435/320.1, 435/69.3, 536/23.7

ABSTRACT:

The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd. SEQ ID NO: 1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMOC	Draw Desc
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☐ 11. Document ID: US 20040058863 A1

L15: Entry 11 of 70

File: PGPB

Mar 25, 2004

PGPUB-DOCUMENT-NUMBER: 20040058863  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040058863 A1

TITLE: Novel compounds

PUBLICATION-DATE: March 25, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 514/12; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

ABSTRACT:

The invention provides BASB203 polypeptides and polynucleotides encoding BASB203 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMOC	Draw Desc
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☐ 12. Document ID: US 20040054139 A1

L15: Entry 12 of 70

File: PGPB

Mar 18, 2004

PGPUB-DOCUMENT-NUMBER: 20040054139  
PGPUB-FILING-TYPE: new

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

DOCUMENT-IDENTIFIER: US 20040054139 A1

TITLE: Modification of hepatitis b core antigen

PUBLICATION-DATE: March 18, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Page, Mark	Derby		GB	
Li, Jin-Li	Beckenham		GB	
Pumpens, Paul	Riga Latvia		GB	
Borisova, Galina	Riga Latvia		GB	

US-CL-CURRENT: 530/350

ABSTRACT:

A protein is provided comprising hepatitis B core antigen (HBcAg) wherein one or more of the four arginine repeats has been deleted, said protein comprising the C-terminal cysteine of HBcAg. The deleted region may be replaced by an epitope from a protein other than HBcAg, in which case the HBcAg acts as a carrier to present the epitope to the immune system. The chimeric protein is useful in prophylactic and therapeutic vaccination of a host, for example against hepatitis B virus.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 13. Document ID: US 20040047875 A1

L15: Entry 13 of 70

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040047875

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040047875 A1

TITLE: Novel compounds

PUBLICATION-DATE: March 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 424/185.1; 435/320.1, 435/325, 435/69.1, 530/350, 536/23.5

ABSTRACT:

The invention provides BASB201 polypeptides and polynucleotides encoding BASB201 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 14. Document ID: US 20040043456 A1

L15: Entry 14 of 70

File: PGPB

Mar 4, 2004

PGPUB-DOCUMENT-NUMBER: 20040043456  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040043456 A1

TITLE: Novel compounds

PUBLICATION-DATE: March 4, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 435/69.7; 435/320.1, 435/325, 530/350, 536/23.5

ABSTRACT:

The invention provides BASB209 polypeptides and polynucleotides encoding BASB209 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Drawn Des
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☐ 15. Document ID: US 20040039169 A1

L15: Entry 15 of 70

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040039169  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040039169 A1

TITLE: Haemophilus Influenzae basb202 polypeptide, production, vaccine and diagnostic use

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thornnard, Joelle A	Rixensart		BE	

US-CL-CURRENT: 530/350

ABSTRACT:

The invention provides BASB202 polypeptides and polynucleotides encoding BASB202 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Drawn Des
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☐ 16. Document ID: US 20040037840 A1

L15: Entry 16 of 70

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040037840  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040037840 A1

TITLE: Novel therapeutic vaccine formulations

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Beier, Anne Mette	Horsholm		DK	
Gautam, Anand	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 514/55

ABSTRACT:

The present invention relates to a novel method and formulation for the induction of immune responses against polypeptide antigens. In particular, the invention provides a method and formulation for induction of cytotoxic T cell responses against a polypeptide antigen of choice. The formulations are characterized by containing chitosan in admixture with the polypeptide antigen, preferably in the form of microparticles that may be cross-linked.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	Keyword	Draw Des
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☐ 17. Document ID: US 20040022803 A1

L15: Entry 17 of 70

File: PGPB

Feb 5, 2004

PGPUB-DOCUMENT-NUMBER: 20040022803  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20040022803 A1

TITLE: Base205 polypeptides and polynucleotides therefor

PUBLICATION-DATE: February 5, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Thonnard, Joelle	Rixensart		BE	

US-CL-CURRENT: 424/190.1; 435/252.3, 435/320.1, 435/69.1, 530/395, 536/23.7

ABSTRACT:

The invention provides BASB205 polypeptides and polynucleotides encoding BASB205 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 18. Document ID: US 20040009897 A1

L15: Entry 18 of 70

File: PGPB

Jan 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040009897

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040009897 A1

TITLE: Stabilized synthetic immunogen delivery system

PUBLICATION-DATE: January 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Sokoll, Kenneth K.	Stony Brook	NY	US	

US-CL-CURRENT: 514/7; 530/395

ABSTRACT:

The present invention provides an immunostimulatory complex specifically adapted to act as adjuvant and as a peptide immunogen stabilizer. The immunostimulatory complex comprises a CpG oligonucleotide and a biologically active peptide immunogen. The immunostimulatory complex is particulate and can efficiently present peptide immunogens to the cells of the immune system to produce an immune response. The immunostimulatory complex may be formulated as a suspension for parenteral administration. The immunostimulatory complex may also be formulated in the form of w/o-emulsions, as a suspension in combination with a mineral salt suspension or with an in-situ gelling polymer for the efficient delivery of an immunogen to the cells of the immune system of a subject following parenteral administration, to produce an immune response which may also be a protective immune response.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMMC	Draw Des
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☐ 19. Document ID: US 20030202982 A1

L15: Entry 19 of 70

File: PGPB

Oct 30, 2003

PGPUB-DOCUMENT-NUMBER: 20030202982

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030202982 A1

TITLE: Influenza immunogen and vaccine

PUBLICATION-DATE: October 30, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Birkett, Ashley J.	Escondido	CA	US	

## ABSTRACT:

A chimeric, carboxy-terminal truncated hepatitis B virus nucleocapsid protein (HBc) is disclosed that contains an immunogen for inducing the production of antibodies to the influenza M2 protein. An immunogenic influenza epitope is preferably expressed at or near the N-terminus or in the HBc immunogenic loop sequence. The chimera preferably contains an influenza-specific T cell epitope and is preferably engineered for both enhanced stability of self-assembled particles and enhanced yield of those chimeric particles. Methods of making and using the chimeras are also disclosed.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Drawings
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☐ 20. Document ID: US 20030194801 A1

L15: Entry 20 of 70

File: PGPB

Oct 16, 2003

PGPUB-DOCUMENT-NUMBER: 20030194801

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030194801 A1

TITLE: Use of flavivirus for the expression of protein epitopes and development of new live attenuated vaccine virus to immune against flavivirus and other infectious agents

PUBLICATION-DATE: October 16, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bonaldo, Mirna C.	Rio de Janeiro		BR	
Galler, Ricardo	Rio de Janeiro		BR	
Freire, Marcos da Silva	Rio de Janeiro		BR	
Garraat, Richard C.	Sao Paulo		BR	

US-CL-CURRENT: 435/320.1; 435/345, 435/6, 435/69.1

## ABSTRACT:

The present invention relates to a vaccine against infections caused by flavivirus. More particularly to the use of the YF vaccine virus (17D) to express at the level of its envelope, protein epitopes from other pathogens which will elicit a specific immune response to the parental pathogen.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Drawings
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☐ 21. Document ID: US 20030185845 A1

L15: Entry 21 of 70

File: PGPB

Oct 2, 2003

PGPUB-DOCUMENT-NUMBER: 20030185845

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030185845 A1

TITLE: Novel immunogenic mimetics of multimer proteins

PUBLICATION-DATE: October 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Klysner, Steen	Horsholm		DK	
Nielsen, Finn Stausholm	Horsholm		DK	
Mouritsen, Soren	Horsholm		DK	
Voldborg, Bjorn	Horsholm		DK	
Bratt, Tomas	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 530/350

ABSTRACT:

The present invention relates to novel immunogenic variants of multimeric proteins such as immunogenic variants of interleukin 5 (IL5) and tumour necrosis factor alpha (TNF, TNF.alpha.). The variants are, besides from being immunogenic in the autologous host, also highly similar to the native 3D structure of the proteins from which they are derived. Certain variants are monomeric mimics of the multimers, where peptide linkers (inert or T helper epitope containing) ensure a spatial organisation of the monomer units that facilitate correct folding. A subset of variants are monomer TNF.alpha. variants that exhibit a superior capability of assembling into multimers with a high structural similarity to the native protein. Also disclosed are methods of treatment and production of the variants as well as DNA fragments, vectors, and host cells.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMIC	Draw. Desc.
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☐ 22. Document ID: US 20030166558 A1

L15: Entry 22 of 70

File: PGPB

Sep 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030166558

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030166558 A1

TITLE: Synthetic immunogenic but non-deposit-forming polypeptides and peptides homologous to amyloid beta, prion protein, amylin, alpha-synuclein, or polyglutamine repeats for induction of an immune response thereto

PUBLICATION-DATE: September 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Frangione, Blas	New York	NY	US	
Wisniewski, Thomas	Statent Island	NY	US	
Sigurdsson, Einar M.	New York	NY	US	

US-CL-CURRENT: 514/12; 514/13, 514/14, 514/15, 530/324, 530/325, 530/326, 530/327, 530/328

ABSTRACT:

The present invention relates to immunogenic but non-depositing-forming polypeptides or peptides homologous to amyloid .beta., prion, amylin or .alpha.-synuclein which can be used alone or conjugated to an immunostimulatory molecule in an immunizing composition for inducing an immune response to amyloid .beta. peptides and amyloid deposits, to prion protein and prion deposits, to amylin and amylin deposits, to .alpha.-synuclein and deposits containing .alpha.-synuclein, or to polyglutamine repeats and deposits of proteins containing polyglutamine repeats. Described are also antibodies directed against such peptides, their generation, and their use in methods of passive immunization to such peptides and deposits.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMBO	Drawn Des
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☐ 23. Document ID: US 20030165525 A1

L15: Entry 23 of 70

File: PGPB

Sep 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030165525

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030165525 A1

TITLE: TB diagnostic based on antigens from M. tuberculosis

PUBLICATION-DATE: September 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Andersen, Peter	Bronshøj		DK	
Weldingh, Karin	Vaerlose		DK	
Hansen, Christina Veggerby	Manchester		GB	
Florio, Walter	Carrara		IT	
Okkels, Li Mei Meng	Bagsvaerd		DK	
Skjot, Rikke Louise Vinther	Hedehusene		DK	
Rasmussen, Peter Birk	Copenhagen		DK	

US-CL-CURRENT: 424/190.1

ABSTRACT:

The present invention is based on the identification and characterization of a number of novel M. tuberculosis derived proteins and protein fragments. The invention is directed to the polypeptides and immunologically active fragments thereof, the genes encoding them, immunological compositions such as diagnostic reagents containing the polypeptides.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMBO	Drawn Des
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☐ 24. Document ID: US 20030165478 A1

L15: Entry 24 of 70

File: PGPB

Sep 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030165478

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030165478 A1



TITLE: Stabilized synthetic immunogen delivery system

PUBLICATION-DATE: September 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Sokoll, Kenneth K.	Stony Brook	NY	US	

US-CL-CURRENT: 424/93.21; 514/7, 530/395

ABSTRACT:

The present invention provides an immunostimulatory complex specifically adapted to act as adjuvant and as a peptide immunogen stabilizer. The immunostimulatory complex comprises a CpG oligonucleotide and a biologically active peptide immunogen. The immunostimulatory complex is particulate and can efficiently present peptide immunogens to the cells of the immune system to produce an immune response. The immunostimulatory complex may be formulated as a suspension for parenteral administration. The immunostimulatory complex may also be formulated in the form of w/o-emulsions or in-situ gelling polymers for the efficient delivery of immunogens to the cells of the immune system of a subject following parenteral administration, to produce an immune response.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMOC	Draw. Desc
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☐ 25. Document ID: US 20030157117 A1

L15: Entry 25 of 70

File: PGPB

Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030157117

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030157117 A1

TITLE: Novel method for down-regulation of amyloid

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rasmussen, Peter Birk	Horsholm		DK	
Jensen, Martin Roland	Horsholm		DK	
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	
Degan, Florence Dal	Horsholm		DK	

US-CL-CURRENT: 424/185.1; 435/226

ABSTRACT:

Disclosed are novel methods for combatting diseases characterized by deposition of amyloid. The methods generally rely on immunization against amyloid precursor protien (APP) or beta amyloid (A.beta.). Immunization is preferably effected by administration of analogues of autologous APP or A.beta., said analogues being capable of inducing antibody production against the autologous amyloidogenic polypeptides. Especially preferred as an immunogen is autologous A.beta. which has

been modified by introduction of one single or a few foreign, immunodominant and promiscuous T-cell epitopes. Also disclosed are nucleic acid vaccination against APP or A.beta. and vaccination using live vaccines as well as methods and means useful for the vaccination. Such methods and means include methods for the preparation of analogues and pharmaceutical formulations, as well as nucleic acid fragments, vectors, transformed cells, polypeptides and pharmaceutical formulations.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 26. Document ID: US 20030138454 A1

L15: Entry 26 of 70

File: PGPB

Jul 24, 2003

PGPUB-DOCUMENT-NUMBER: 20030138454

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030138454 A1

TITLE: Vaccination method

PUBLICATION-DATE: July 24, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hill, Adrian V. S.	Oxford		GB	
McShane, Helen	Oxford		GB	
Gilbert, Sarah C.	Oxford		GB	
Reece, William	Newtown		AU	
Schneider, Joerg	Barton		GB	

US-CL-CURRENT: 424/199.1; 424/184.1, 424/232.1, 424/248.1, 424/268.1, 424/273.1, 424/277.1, 435/320.1, 435/7.92, 530/326

ABSTRACT:

New methods and reagents for vaccination are described which generate a CD8 T cell immune response against malarial and other antigens such as viral and tumour antigens. Novel vaccination regimes are described which employ a priming composition and a boosting composition, the boosting composition comprising a non-replicating or replication-impaired pox virus vector carrying at least one CD8 T cell epitope which is also present in the priming composition. There is also provided a method of inducing a CD4+ T-cell response against a target antigen, by administering a composition comprising a source of one or more CD4+ T cell epitopes of the target antigen wherein the source of CD4+ epitopes is a non-replicating or replication impaired recombinant poxvirus vector. A method of inducing a combined CD4+ and CD8+ T cell response against a target antigen is also described herein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 27. Document ID: US 20030138409 A1

L15: Entry 27 of 70

File: PGPB

Jul 24, 2003

PGPUB-DOCUMENT-NUMBER: 20030138409

PGPUB-FILING-TYPE: new

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

DOCUMENT-IDENTIFIER: US 20030138409 A1

TITLE: Th1 specific cd4 t cell lines and method for inducing them ex vivo

PUBLICATION-DATE: July 24, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Pancre, Veronique	Orchies		FR	
Gras-Masse, Helene	Merignies		FR	
Bouzidi, Ahmed	Annoeullin		FR	
Hachulla, Eric	Wattignies		FR	
Auriault, Claude	Nomain		FR	

US-CL-CURRENT: 424/93.7; 435/372

ABSTRACT:

A TH1 specific CD4 T cell line, inducing an efficient CD8 response against an infection caused by an infectious agent, is obtained by removing from a donor a biological sample containing T cells; isolating the CD4.sup.+ T cells from said sample; simultaneously providing dendritic cells isolated from the same sample or another sample derived from the same donor, subjecting the previously isolated CD4.sup.+ T cells to in vitro immunisation with a peptide of a protein of the infectious agent exhibiting at least a T epitope, in the presence of the previously obtained dendritic cells; performing at least a restimulation, in the same conditions as for immunization, optionally substituting the dendritic cells with B cells from the same donor.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMBO	Draw Des
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☐ 28. Document ID: US 20030064916 A1

L15: Entry 28 of 70

File: PGPB

Apr 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030064916

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030064916 A1

TITLE: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS

PUBLICATION-DATE: April 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
SHERMAN, LINDA A.	LA JOLLA	CA	US	

US-CL-CURRENT: 514/4; 435/7.1, 514/8, 530/300

ABSTRACT:

The present invention relates to methods, compositions, and peptides useful in activating CTLs in vivo with specificity for particular antigenic peptides. The invention also discloses the use of activated CTLs in vivo for the diagnosis and treatment of a variety of disease conditions, and compositions appropriate for these

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

uses. Diagnostic systems, components, and methods are also described herein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 29. Document ID: US 20030031683 A1

L15: Entry 29 of 70

File: PGPB

Feb 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030031683

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030031683 A1

TITLE: Recombinant vaccines comprising immunogenic attenuated bacteria having RpoS positive phenotype

PUBLICATION-DATE: February 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Curtiss, Roy III	St. Louis	MO	US	
Nickerson, Cheryl A.	River Ridge	LA	US	

US-CL-CURRENT: 424/200.1; 424/258.1, 424/93.2, 435/252.3, 435/252.8, 435/471, 435/897

ABSTRACT:

Attenuated immunogenic bacteria having an RpoS.sup.+ phenotype, in particular, Salmonella enterica serotype Typhi having an RpoS.sup.+ phenotype and methods therefor are disclosed. The Salmonella have in addition to an RpoS.sup.+ phenotype, an inactivating mutation in one or more genes which render the microbe attenuated, and a recombinant gene capable of expressing a desired protein. The Salmonella are attenuated and have high immunogenicity so that they can be used in vaccines and as delivery vehicles for genes and gene products. Also disclosed are methods for preparing the vaccine delivery vehicles.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Des
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☐ 30. Document ID: US 20030022820 A1

L15: Entry 30 of 70

File: PGPB

Jan 30, 2003

PGPUB-DOCUMENT-NUMBER: 20030022820

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030022820 A1

TITLE: IN VIVO ACTIVATION OF TUMOR-SPECIFIC CYTOTOXIC T CELLS

PUBLICATION-DATE: January 30, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
SHERMAN, LINDA A.	LA JOLLA	CA	US	

US-CL-CURRENT: 514/8; 530/350, 530/387.1, 536/23.1

ABSTRACT:

The present invention relates to methods, compositions, and peptides useful in activating CTLs in vivo with specificity for particular antigenic peptides. The invention also discloses the use of activated CTLs in vivo for the diagnosis and treatment of a variety of disease conditions, and compositions appropriate for these uses. Diagnostic systems, components, and methods are also described herein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMC	Draw Des
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☐ 31. Document ID: US 20020197711 A1

L15: Entry 31 of 70

File: PGPB

Dec 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020197711

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020197711 A1

TITLE: Coxsackievirus B4 expression vectors and uses thereof

PUBLICATION-DATE: December 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ramsingh, Arlene I.	Glenmont	NY	US	
Halim, Sadia S.	Norwalk	CT	US	

US-CL-CURRENT: 435/320.1; 424/148.1, 424/199.1, 424/207.1, 435/5, 435/69.7, 435/91.1, 435/91.33

ABSTRACT:

Disclosed is a recombinant attenuated coxsackievirus B4 virion which is engineered to contain a heterologous nucleic acid within the open reading frame of its genome, wherein the heterologous nucleic acid encodes a heterologous polypeptide which is expressed by the virion. Specific examples of attenuated coxsackievirus B4 virions suitable for use in the present invention are CB4-P and JVB. In one embodiment the heterologous nucleic acid is inserted into the P1 region of the genome such that the heterologous polypeptide is expressed as a fusion of a viral capsid protein. Methods of use of the recombinant attenuated coxsackievirus B4 virion include inducing an immune response in an individual to the heterologous polypeptide contained therein.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	EMC	Draw Des
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☐ 32. Document ID: US 20020172673 A1

L15: Entry 32 of 70

File: PGPB

Nov 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020172673

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020172673 A1

TITLE: Method for down-regulating IgE

PUBLICATION-DATE: November 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Klysner, Steen	Horsholm		DK	
von Hoegen, Paul	Horsholm		DK	
Voldborg, Bjorn	Horsholm		DK	
Gautam, Anand	Horsholm		DK	

US-CL-CURRENT: 424/131.1

ABSTRACT:

The present invention discloses methods for immunizing against autologous (self) Immunoglobulin E (IgE). In particular, the invention discloses methods for inducing cytotoxic T-lymphocytes that will specifically down-regulate B-cells producing autologous IgE, notably by means of nucleic acid vaccination or live vaccination. Also disclosed are methods for inducing antibodies reactive with autologous IgE as well as methods for inducing a combined antibody and CTK response specific for IgE. The invention also discloses specific immunogenic protein constructs, nucleic acids encoding these as well as various formulations and tools for preparing the vaccines, including vectors and transformed host cells.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Des.
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☐ 33. Document ID: US 20020119162 A1

L15: Entry 33 of 70

File: PGPB

Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119162

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020119162 A1

TITLE: Synthetic vaccine agents

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Nielsen, Klaus Gregorius	Horsholm		DK	
Koefoed, Peter	Horsholm		DK	

US-CL-CURRENT: 424/185.1

ABSTRACT:

The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 separate antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different molecules and species. Exemplary immunogens of the invention are constituted of a linear tressyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled

universal T-helper epitopes. Also disclosed are immunogenic compositions comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw. Des.
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☐ 34. Document ID: US 20020115061 A1

L15: Entry 34 of 70

File: PGPB

Aug 22, 2002

PGPUB-DOCUMENT-NUMBER: 20020115061  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020115061 A1

TITLE: PEPTIDES FOR INDUCING CYTOTOXIC T LYMPHOCYTE RESPONSES TO HEPATITIS C VIRIS

PUBLICATION-DATE: August 22, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
CHISARI, FRANCIS V.	DEL MAR	CA	US	
CERNY, ANDREAS	LA JOLLA	CA	US	

US-CL-CURRENT: 435/5; 424/189.1, 424/196.11, 424/228.1, 435/7.2, 435/7.24, 436/63,  
530/324, 530/325, 530/326, 530/327, 530/328

ABSTRACT:

The present invention is directed to a molecule comprising a polypeptide having substantial homology with a CTL epitope selected from the group consisting of ADLMGYIPLV (Core.sub.131-140; SEQ ID NO:1), LLALLSCLTV (Core.sub.178-187; SEQ ID NO:2), QLRRHIDLLV (SEQ ID NO:55), LLCPAGHAV (NS3.sub.1169-1177; SEQ ID NO:26), KLVALGINAV (NS3.sub.1406-1415; SEQ ID NO:28), SLMAFTAAV (NS4.sub.1789-1797; SEQ ID NO:34), LLFNILGGWV (NS4.sub.1807-1816; SEQ ID NO:35), and ILDSFDPLV (NS5.sub.2252-2260; SEQ ID NO:42). Such molecules are used for the treatment and prevention of acute or chronic HCV hepatitis; suitable pharmaceutical compositions and methods using such compositions are disclosed.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw. Des.
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☐ 35. Document ID: US 20020044948 A1

L15: Entry 35 of 70

File: PGPB

Apr 18, 2002

PGPUB-DOCUMENT-NUMBER: 20020044948  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020044948 A1

TITLE: Methods and compositions for co-stimulation of immunological responses to peptide antigens

PUBLICATION-DATE: April 18, 2002

INVENTOR-INFORMATION:

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

NAME	CITY	STATE	COUNTRY	RULE-47
Khleif, Samir	Silverspring	MD	US	
Berzofsky, Jay	Bethesda	MD	US	

US-CL-CURRENT: 424/234.1; 424/184.1, 530/350

ABSTRACT:

Method for eliciting an immune response in a vertebrate subject are provided involving administration of a peptide antigen to the subject in a coordinated vaccination procedure that also involves administration of a non-viral vector that encodes a T cell co-stimulatory molecule. The peptide antigen contains at least one T cell epitope and may include an epitope of a tumor antigen or an antigen of a viral or non-viral pathogen. Epitopes from tumor antigens may represent fragments or partial amino acid sequences of p53, ras, rb, mcc, apc, dcc; nfl; VHL; MEN1, MEN2, MLM, Her-2neu, CEA, PSA; Mucl, Gp100, tyrosinase, or MART1 proteins, and often span a mutation identified in the tumor antigen. Various viral antigens may be selected, for example antigens identified in a human immunodeficiency virus (HIV), hepatitis B virus (HBV), herpes simplex virus (HSV) or human papilloma virus (HPV), for production of peptide antigens corresponding to immunogenic epitopes of the viral antigen. The peptide antigen is administered simultaneously or sequentially with administration of the vector encoding the co-stimulatory molecules. Co-stimulatory molecules useful for coordinate administration with peptide antigens to elicit an enhanced T cell-mediated immune response may be selected from B7-1, B7-2, B7-3, ICAM1, ICAM2, LFA1 or LFA2. The peptide antigen and non-viral vector encoding the T cell co-stimulatory molecule are administered to proximal target sites selected from the same, or closely-adjacent, intradermal, subcutaneous, mucosal or intratumoral sites.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 36. Document ID: US 20010048929 A1

L15: Entry 36 of 70

File: PGPB

Dec 6, 2001

PGPUB-DOCUMENT-NUMBER: 20010048929

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010048929 A1

TITLE: NOVEL MULTI-OLIGOSACCHARIDE GLYCOCONJUGATE BACTERIAL MENINGITIS VACCINES

PUBLICATION-DATE: December 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
CHONG, PELE	RICHMOND HILL		CA	
LINDBERG, ALF	LYON		FR	
KLEIN, MICHEL	WILLOWDALE		CA	

US-CL-CURRENT: 424/234.1; 424/236.1, 424/244.1, 424/249.1

ABSTRACT:

Multivalent immunogenic molecules comprise a carrier molecule containing at least one functional T-cell epitope and multiple different carbohydrate fragments each linker to the carrier molecule and each containing at least one functional B-cell epitope.

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04



The carrier molecule inputs enhanced immunogenicity to the multiple carbohydrate fragments. The carbohydrate fragments may be capsular oligosaccharide fragments from *Streptococcus pneumoniae*, which may be serotypes 1, 4, 5, 6B, 9V, 14, 18C, 19F or 23F, or *Neisseria meningitidis*, which may be serotype A, B, C, W-135 or Y. Such oligosaccharide fragments may be sized from 2 to 5 kDa. Alternatively, the carbohydrate fragments may be fragments of carbohydrate-based tumor antigens, such as Globo H, Le.sup.Y or STn. The multivalent molecules may be produced by random conjugation or site-directed conjugation of the carbohydrate fragments to the carrier molecule. The multivalent molecules may be employed in vaccines or in the generation of antibodies for diagnostic application.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 37. Document ID: US 20010041788 A1

L15: Entry 37 of 70

File: PGPB

Nov 15, 2001

PGPUB-DOCUMENT-NUMBER: 20010041788  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20010041788 A1

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of *chlamydia trachomatis*

PUBLICATION-DATE: November 15, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
DeMars, Robert I.	Madison	WI	US	
Kim, Seon-Kyeong	Sunnyvale	CA	US	

US-CL-CURRENT: 530/328; 536/23.7

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of *Chlamydia trachomatis* serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	MMMC	Draw Des
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☐ 38. Document ID: US 6692752 B1

L15: Entry 38 of 70

File: USPT

Feb 17, 2004

US-PAT-NO: 6692752  
DOCUMENT-IDENTIFIER: US 6692752 B1

TITLE: Methods of treating human females susceptible to HSV infection

DATE-ISSUED: February 17, 2004

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Slaoui; Moncef Mohamed	Rixensart			BE
Vandepapeliere; Pierre G.	Rixensart			BE

US-CL-CURRENT: 424/231.1; 424/279.1, 424/283.1, 530/826

## ABSTRACT:

A method of administering a vaccine to females to prevent or treat infections associated with pathogens which cause sexually transmitted diseases is described. The vaccine comprises one or more antigens for the prevention or treatment of sexually transmitted diseases, for example an HSV glycoprotein D or an immunological fragment thereof, and an adjuvant, especially a TH-1 inducing adjuvant. The use of the vaccine components for the formulation of a vaccine composition for the prevention or treatment of sexually transmitted diseases in female subjects is also described.

13 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	Publ	Draw	Des
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☐ 39. Document ID: US 6685947 B1

L15: Entry 39 of 70

File: USPT

Feb 3, 2004

US-PAT-NO: 6685947

DOCUMENT-IDENTIFIER: US 6685947 B1

TITLE: T helper cell epitopes

DATE-ISSUED: February 3, 2004

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jackson; David Charles	Victoria			AU
Ghosh; Souravi	Victoria			AU
Walker; John	Victoria			AU

US-CL-CURRENT: 424/213.1; 424/186.1, 424/204.1, 424/278.1, 435/343.1, 435/343.2, 435/69.1, 530/300

## ABSTRACT:

The present invention provides T helper cells epitopes and compositions for use in inducing an immune response comprising at least one of these epitopes. The epitopes are contained within a peptide sequence selected from the group consisting of SSKTQTHTQQDRPPQPS (SEQ ID NO:1); QPSTELEETRTSRARHS (SEQ ID NO:2); RHSTTSAQRSTHYDPRT (SEQ ID NO:3); PRTSDRPVSYTMNRTRS (SEQ ID NO:4); TRSRKQTSRHLKNIPVH (SEQ ID NO:5); SHQYLVIKLIPNASLIE (SEQ ID NO:6); IGTDNVHYKIMTRPSHQ (SEQ ID NO:7); YKIMTRPSHQYLVIKLI (SEQ ID NO:8); KLIPNASLIENCTKAEL (SEQ ID NO:9); AELGEYEKLLNSVLEPI (SEQ ID NO:10); KLLNSVLEPINQALTLTLM (SEQ ID NO:11); EPINQALTLMTKNVKPL (SEQ ID NO:12); FAGVVLGVALGVATAA (SEQ ID NO:13); GVALGVATAAQITAGIA (SEQ ID NO:14); TMQITAGIALHQSNLN (SEQ ID NO:15); GIALHQSNLNAQAIQSL (SEQ ID NO:16); NLNAQAIQSLRTSLEQS (SEQ ID NO:17); QSLRTSLEQSNKAIEEI (SEQ ID NO:18); EQSNKAIEEIREATQET (SEQ ID NO:19); TELLISIFGPSLRDPISA (SEQ ID NO:20); PRYIATNGYLISNFEDES (SEQ ID NO:21); CIRGDTSSCARTLVSGT (SEQ ID NO:22); DESSCVFVSESAICSQN

(SEQ ID NO:23); TSTIINQSPDKLLTFIA (SEQ ID NO:24); SPDKLLTFIASDTCPLV (SEQ ID NO:25)  
and SGRRQRRFAGVVLGVA (SEQ ID NO:26).

16 Claims, 4 Drawing figures  
Exemplary Claim Number: 2  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Draw. Des.
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☐ 40. Document ID: US 6676946 B2

L15: Entry 40 of 70

File: USPT

Jan 13, 2004

US-PAT-NO: 6676946  
DOCUMENT-IDENTIFIER: US 6676946 B2

TITLE: Multiple antigen glycopeptide carbohydrate vaccine comprising the same and use thereof

DATE-ISSUED: January 13, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bay; Sylvie	Paris			FR
Cantacuzene; Daniele	Paris			FR
Leclerc; Claude	Paris			FR
Lo-Man; Richard	Paris			FR
Vicher-Guerre; Sophie	La Celle Saint Cloud			FR

US-CL-CURRENT: 424/196.11; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/194.1,  
530/324, 530/350, 536/1.11

ABSTRACT:

A carbohydrate peptide conjugate containing: (i) a carrier containing a dendrimeric poly-lysine enabling multiple epitopes to be covalently attached thereto, (ii) at least one peptide containing one T epitope or several identical or different T-epitopes, (iii) at least one carbohydrate moiety which is tumor antigen, or a derivative thereof, containing a B epitope, provided it is not a sialoside, or several identical or different epitopes, wherein said conjugate containing at least 3-lysines and up to 15 lysine covalently linked to one another, and wherein: (a) to the NH.sub.2 and of at least two lysine residues is bound at least one carbohydrate residue being not a sialoside, optionally substituted and containing an epitope and wherein the peptide containing one T epitope is covalently bound to the end of said carbohydrate which induces immune responses.

3 Claims, 37 Drawing figures  
Exemplary Claim Number: 1,3  
Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Draw. Des.
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☐ 41. Document ID: US 6669945 B1

US-PAT-NO: 6669945

DOCUMENT-IDENTIFIER: US 6669945 B1

TITLE: Universal T-cell epitopes for anti-malarial vaccines

DATE-ISSUED: December 30, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nardin; Elizabeth	Leonia	NJ		
Morena; Alberto	Santafe de Bogota	CO		

US-CL-CURRENT: 424/272.1; 424/191.1, 424/193.1, 530/300, 530/323, 530/326, 530/806, 530/822

## ABSTRACT:

The present invention provides methods and compositions for eliciting protective immunity against malaria. In particular, the invention relates to universal T-cell epitopes that elicit T-cell responses in individuals of differing genetic backgrounds. Immunogenic compositions and vaccines including malaria-specific universal T-cell epitopes are disclosed.

24 Claims, 9 Drawing figures

Exemplary Claim Number: 1,9,15

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	MMO	Draw Des
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☐ 42. Document ID: US 6656472 B1

L15: Entry 42 of 70

File: USPT

Dec 2, 2003

US-PAT-NO: 6656472

DOCUMENT-IDENTIFIER: US 6656472 B1

TITLE: Multi oligosaccharide glycoconjugate bacterial meningitis vaccines

DATE-ISSUED: December 2, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Lindberg; Alf	Lyons			FR
Klein; Michel H.	Willowdale			CA

US-CL-CURRENT: 424/193.1; 424/197.11, 424/244.1, 424/249.1, 424/250.1, 530/322, 530/335, 530/345, 530/402, 530/403, 530/807

## ABSTRACT:

Multivalent immunogenic molecules comprise a carrier molecule containing at least one

functional T-cell epitope and multiple different carbohydrate fragments each linked to the carrier molecule and each containing at least one functional B-cell epitope. The carrier molecule imparts enhanced immunogenicity to the multiple carbohydrate fragments. The carbohydrate fragments may be capsular oligosaccharide fragments from Streptococcus pneumoniae which may be serotypes (1, 4, 5, 6B, 9V, 14, 18C, 19F or 23F), or Neisseria meningitidis, which may be serotype (A, B, C) W-135 or Y. Such oligosaccharide fragments may be sized from about 2 to about 5 kDa. Alternatively, the carbohydrate fragments may be fragments of carbohydrate-based tumor antigens, such as Globo H, Le.sup.Y or STn. The multivalent molecules may be produced by random conjugation or site-directed conjugation of the carbohydrate fragments to the carrier molecule. The multivalent molecules may be employed in vaccines or in the generation of antibodies for diagnostic applications.

8 Claims, 12 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMIC	Draw Des
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☐ 43. Document ID: US 6653461 B2

L15: Entry 43 of 70

File: USPT

Nov 25, 2003

US-PAT-NO: 6653461  
DOCUMENT-IDENTIFIER: US 6653461 B2

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of Chlamydia trachomatis

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 536/23.1; 424/184.1, 424/200.1, 435/320.1, 435/91.2, 530/300, 530/328, 530/350

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

9 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference		Claims	MMIC	Draw Des
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☐ 44. Document ID: US 6607727 B1

US-PAT-NO: 6607727

DOCUMENT-IDENTIFIER: US 6607727 B1

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepatitis B virus

DATE-ISSUED: August 19, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		
Ferrari; Carlo	Parma			IT
Penna; Amalia	Parma			IT
Missael; Gabriele	Parma			IT

US-CL-CURRENT: 424/227.1; 514/12, 514/13, 514/14, 514/15, 514/16, 530/324, 530/326, 530/327, 530/328, 530/350

## ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

65 Claims, 25 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Index	Abstract	Claims	EMC	Draw. Des.
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☐ 45. Document ID: US 6399074 B1

L15: Entry 45 of 70

File: USPT

Jun 4, 2002

US-PAT-NO: 6399074

DOCUMENT-IDENTIFIER: US 6399074 B1

TITLE: Live attenuated salmonella vaccines to control avian pathogens

DATE-ISSUED: June 4, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roland; Kenneth L.	St. Louis	MO		

US-CL-CURRENT: 424/200.1; 424/184.1, 424/93.2, 435/252.1, 435/252.3, 435/252.8, 435/320.1

## ABSTRACT:

A vaccine for protecting birds against infection by avian pathogenic gram negative

microbes is disclosed. The vaccine is a recombinant Salmonella strain expressing O-antigen of an avian pathogenic gram negative microbe such as an E. coli strain that is pathogenic in poultry. The recombinant Salmonella strain also does not express Salmonella O-antigen. Methods of using the vaccine to immunize birds are also disclosed.

30 Claims, 7 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 46. Document ID: US 6383498 B1

L15: Entry 46 of 70

File: USPT

May 7, 2002

US-PAT-NO: 6383498  
DOCUMENT-IDENTIFIER: US 6383498 B1

TITLE: Compositions for vaccines

DATE-ISSUED: May 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rhodes; John Richard	Beckenham			GB

US-CL-CURRENT: 424/282.1; 424/204.1, 424/234.1, 424/269.1, 424/274.1, 424/94.2

ABSTRACT:

Neuraminidase and galactose oxidase together are a vaccine adjuvant.

10 Claims, 30 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw Des
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☐ 47. Document ID: US 6383496 B1

L15: Entry 47 of 70

File: USPT

May 7, 2002

US-PAT-NO: 6383496  
DOCUMENT-IDENTIFIER: US 6383496 B1

TITLE: Recombinant vaccines comprising immunogenic attenuated bacteria having RPOS positive phenotype

DATE-ISSUED: May 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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Curtiss, III; Roy  
Nickerson; Cheryl A.

St. Louis  
River Ridge  
MO  
LA

US-CL-CURRENT: 424/200.1; 424/258.1, 424/93.2, 435/252.3, 435/252.8, 435/471, 435/897

ABSTRACT:

Attenuated immunogenic bacteria having an RpoS.sup.+ phenotype, in particular, Salmonella enterica serotype Typhi having an RpoS.sup.+ phenotype and methods therefor are disclosed. The Salmonella have in addition to an RpoS.sup.+ phenotype, an inactivating mutation in one or more genes which render the microbe attenuated, and a recombinant gene capable of expressing a desired protein. The Salmonella are attenuated and have high immunogenicity so that they can be used in vaccines and as delivery vehicles for genes and gene products. Also disclosed are methods for preparing the vaccine delivery vehicles.

31 Claims, 16 Drawing figures  
Exemplary Claim Number: 1,23  
Number of Drawing Sheets: 16

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 48. Document ID: US 6322789 B1

L15: Entry 48 of 70

File: USPT

Nov 27, 2001

US-PAT-NO: 6322789  
DOCUMENT-IDENTIFIER: US 6322789 B1

TITLE: HLA-restricted hepatitis B virus CTL epitopes

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vitiello; Maria A.	La Jolla	CA		
Chesnut; Robert W.	Cardiff by the Sea	CA		

US-CL-CURRENT: 424/189.1; 424/193.1, 424/196.11, 424/227.1

ABSTRACT:

Cytotoxic T lymphocyte-stimulating peptides induce HLA-restricted responses to hepatitis B virus antigens. The peptides, derived from CTL epitopic regions of both HBV surface and nucleocapsid antigens, are particularly useful in the treatment and prevention of HBV infection, including the treatment of chronically infected HBV carriers. The peptides can be formulated as HBV vaccines and pharmaceutical compositions, such as lipid-containing compositions for enhancing the HLA-restricted CTL responses. The peptides are also useful in diagnostic methods, such as predicting which HBV-infected individuals are prone to developing chronic infection.

22 Claims, 51 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 18



☐ 49. Document ID: US 6294322 B1

L15: Entry 49 of 70

File: USPT

Sep 25, 2001

US-PAT-NO: 6294322

DOCUMENT-IDENTIFIER: US 6294322 B1

TITLE: Multideterminant peptides that elicit helper T-lymphocyte cytotoxic T-lymphocyte and neutralizing antibody responses against HIV-1

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendleton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kita-gun			JP

US-CL-CURRENT: 435/5, 424/188.1, 424/208.1, 530/300, 530/324

ABSTRACT:

Peptide constructs comprised of multideterminant T helper peptides from the envelope glycoprotein of HIV previously identified to induce proliferative responses in four different haplotypes of mice and IL-2 responses in 52-73% of HIV positive, flu positive patients (cluster peptides), were co-linearly synthesized with the peptide 18 of the V3 loop of HIV-1 gp 160, corresponding to the principal neutralizing determinant of HIV-IIIB and also shown to contain a dominant CTL epitope. Cognate help for peptide 18 antibody was elicited following a single immunization in all strains of mice which had previously responded to a T cell epitope encompassed by the peptides. In two strains of mice, the level of neutralizing antibody achieved was comparable to levels adequate for protection from homologous viral challenge in chimpanzees. After a single boost, much higher antibody titers for 90% neutralization in the range of 1:1000 to 1:16,000 were achieved. Spleen cells from mice of three distinct MHC haplotypes sharing the D.sup.d class I MHC molecule but with different class II molecules, immunized with the compound peptides, exhibited enhanced gp160-specific CTL activity.

5 Claims, 49 Drawing figures

Exemplary Claim Number: 1,2

Number of Drawing Sheets: 23

☐ 50. Document ID: US 6225443 B1

L15: Entry 50 of 70

File: USPT

May 1, 2001

US-PAT-NO: 6225443

DOCUMENT-IDENTIFIER: US 6225443 B1

**\*\* See image for Certificate of Correction \*\***

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

TITLE: Cytotoxic T lymphocyte epitopes of the major outer membrane protein of chlamydia trachomatis

DATE-ISSUED: May 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeMars; Robert I.	Madison	WI		
Kim; Seon-Kyeong	Madison	WI		

US-CL-CURRENT: 530/328; 435/320.1, 435/6, 435/91.2, 530/300, 530/350, 536/23.1, 536/24.32

ABSTRACT:

Disclosed herein are 9 amino acid-long peptides from the major outer membrane protein (MOMP) of Chlamydia trachomatis serovar E. These peptides activate CD8+ cytotoxic T-lymphocytes in human infections that are potentially important for resolution of infection and protection against disease. Thus, the peptides, as well as DNA coding for them, are intended for use in vaccination of humans. Also, they are useful in connection with diagnostic tests.

2 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMMC	Draw. Des.
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☐ 51. Document ID: US 6214347 B1

L15: Entry 51 of 70

File: USPT

Apr 10, 2001

US-PAT-NO: 6214347

DOCUMENT-IDENTIFIER: US 6214347 B1

TITLE: Multideterminant peptides that elicit helper T-lymphocyte, cytotoxic T lymphocyte and neutralizing antibody responses against HIV-1

DATE-ISSUED: April 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendleton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kagawa			JP

US-CL-CURRENT: 424/188.1; 424/208.1, 435/69.7, 530/300, 530/324, 530/325, 530/326

ABSTRACT:

The invention is directed to peptides of the HIV-1 envelope protein presenting multiple immune determinants. The peptide elicits both humoral and cell-mediated immune responses in mice having a variety of MHC types. In other embodiments, the invention is directed to immunogens composed of the peptides and methods for

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

immunization employing them.

1 Claims, 13 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 17

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Des.
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☐ 52. Document ID: US 6024961 A

L15: Entry 52 of 70

File: USPT

Feb 15, 2000

US-PAT-NO: 6024961  
DOCUMENT-IDENTIFIER: US 6024961 A

TITLE: Recombinant avirulent immunogenic S typhi having rpos positive phenotype

DATE-ISSUED: February 15, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Curtiss, III; Roy	St. Louis	MO		
Nickerson; Cheryl A.	Chesterfield	MO		

US-CL-CURRENT: 424/200.1; 424/93.2, 435/252.3, 435/252.8, 435/27, 435/29, 435/4,  
435/471

ABSTRACT:

Avirulent immunogenic Salmonella enterica serotype Typhi and methods therefor are disclosed. The Salmonella have an RpoS.sup.+ phenotype, an inactivating mutation in one or more genes which renders the microbe avirulent, and a recombinant gene capable of expressing a desired protein. The Salmonella are avirulent and have high immunogenicity so that they can be used in vaccines and as delivery vehicles for the desired antigen. Also disclosed are methods for preparing the Salmonella and vaccine delivery vehicles therefor.

41 Claims, 10 Drawing figures  
Exemplary Claim Number: 1,39  
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. Des.
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☐ 53. Document ID: US 6018021 A

L15: Entry 53 of 70

File: USPT

Jan 25, 2000

US-PAT-NO: 6018021  
DOCUMENT-IDENTIFIER: US 6018021 A

TITLE: Human transaldolase: an autoantigen with a function in metabolism

DATE-ISSUED: January 25, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Perl; Andras	Jamesville	NY		

US-CL-CURRENT: 530/350; 530/387.1, 536/23.1

## ABSTRACT:

Transaldolase is an enzyme which acts as an autoantigen in immune-related neurodegenerative diseases, particularly multiple sclerosis. Human transaldolase, the DNA coding therefore, peptides derived therefrom, and DNA control elements associated therewith and anti-transaldolase antibodies are disclosed. These compositions are useful in methods such as immunoassays for detecting subjects making anti-transaldolase antibodies and diagnosing the neurodegenerative disease.

12 Claims, 29 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 22

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 54. Document ID: US 6018019 A

L15: Entry 54 of 70

File: USPT

Jan 25, 2000

US-PAT-NO: 6018019

DOCUMENT-IDENTIFIER: US 6018019 A

TITLE: Synthetic Haemophilus influenzae conjugate vaccine

DATE-ISSUED: January 25, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 530/324; 424/185.1, 424/190.1, 424/256.1, 435/851, 530/325, 530/326, 530/327

## ABSTRACT:

The present invention provides immunogenic synthetic peptides which are useful alone or in PRP-conjugates in vaccines against Hemophilus influenza infection. Modifications are possible within the scope of the invention.

5 Claims, 28 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 55. Document ID: US 5993819 A

L15: Entry 55 of 70

File: USPT

Nov 30, 1999

US-PAT-NO: 5993819

DOCUMENT-IDENTIFIER: US 5993819 A

TITLE: Synthetic vaccine for protection against human immunodeficiency virus infection

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Haynes; Barton F.	Durham	NC		
Palker; Thomas J.	Durham	NC		

US-CL-CURRENT: 424/188.1; 424/184.1, 424/204.1, 424/208.1, 530/324, 530/325, 530/326, 530/350

ABSTRACT:

The present invention relates to immunogenic preparations of peptides comprising amino acid sequences corresponding to antigenic determinants of the envelope glycoprotein of HIV, covalently coupled, directly or through a spacer molecule, to carrier molecules suitable for vaccination of mammals.

2 Claims, 52 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 35

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw. Des.
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☐ 56. Document ID: US 5972349 A

L15: Entry 56 of 70

File: USPT

Oct 26, 1999

US-PAT-NO: 5972349

DOCUMENT-IDENTIFIER: US 5972349 A

TITLE: Synthesis of polyribosylribitol phosphate oligosaccharides

DATE-ISSUED: October 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chong; Pele	Richmond Hill			CA
Kandil; Ali	Willowdale			CA
Sia; Charles	Thornhill			CA
Klein; Michel	Willowdale			CA

US-CL-CURRENT: 424/256.1; 424/184.1, 424/193.1, 424/194.1, 514/109, 514/112, 514/120, 514/125, 514/129, 514/139, 514/143, 514/183, 514/23, 514/25, 514/506, 514/54, 514/75, 514/99, 536/1.11, 536/117, 536/123.1, 536/126, 536/127, 536/18.7, 536/4.1

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

ABSTRACT:

Polyribosylribitol phosphate oligosaccharides are produced in a multistep process. The compound of the formula: ##STR1## wherein R.sub.1 is a first protecting group and R.sub.2 is a second protecting group, is coupled to a solid polyethylene glycol monomethyl ether (PEG) support. Following removal of the first protecting group, the resulting compound is coupled with a repeating unit for chain elongation of the formula: ##STR2## The protecting group is removed from the phosphorus atom and the steps of removing the first protecting group, coupling with the repeating unit is repeated until the desired number of repeating units in the oligomer has been terminated. The oligomer then is terminated with a chain terminating molecule of the formula: ##STR3## wherein m is an integer and R.sub.3 is a third protecting group. The resulting PEG-bound protected oligomer is a new product and the oligomer may be cleaved from the support and processed to provide a chemically-reactive functional group for binding the polysaccharide oligomer to a carrier molecule.

8 Claims, 28 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 57. Document ID: US 5932224 A

L15: Entry 57 of 70

File: USPT

Aug 3, 1999

US-PAT-NO: 5932224

DOCUMENT-IDENTIFIER: US 5932224 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepatitis B virus

DATE-ISSUED: August 3, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/227.1; 424/283.1, 424/812, 530/327, 530/328, 530/329

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

49 Claims, 19 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 58. Document ID: US 5932218 A

L15: Entry 58 of 70

File: USPT

Aug 3, 1999

US-PAT-NO: 5932218

DOCUMENT-IDENTIFIER: US 5932218 A

TITLE: Multideterminant peptides eliciting helper T-lymphocyte, cytotoxic T-lymphocyte, and neutralizing antibody responses against HIV-1

DATE-ISSUED: August 3, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berzofsky; Jay A.	Bethesda	MD		
Ahlers; Jeffrey D.	Kensington	MD		
Pendelton; C. David	Bethesda	MD		
Nara; Peter	Frederick	MD		
Shirai; Mutsunori	Kagawa			JP

US-CL-CURRENT: 424/188.1; 424/208.1, 530/324

ABSTRACT:

This invention is directed toward a multideterminant human immunodeficiency virus type 1 (HIV-1) peptide which comprises a covalently linked T-helper (Th) lymphocyte epitope, cytotoxic T-lymphocyte (CTL) epitope, and an epitope capable of eliciting a neutralizing antibody response (AbN), wherein said peptide has the following amino acid sequence: KQIINMWQEVGKAMYAPPISGQIRRIHIGPGRAFYTTKN. This peptide has the further characteristic of evoking all three of these immune responses in hosts having a broad range of major histocompatibility complex (MHC) types. This peptide is useful as an immunogen to generate broad immune responses in a host, to assess immune responses in virally infected hosts, and as a diagnostic reagent to detect viral infection.

2 Claims, 49 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMO	Draw. Desc.
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☐ 59. Document ID: US 5879909 A

L15: Entry 59 of 70

File: USPT

Mar 9, 1999

US-PAT-NO: 5879909

DOCUMENT-IDENTIFIER: US 5879909 A

TITLE: Human transaldolase: an autoantigen with a function in metabolism

DATE-ISSUED: March 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Perl; Andras	Jamesville	NY		

US-CL-CURRENT: 435/69.1; 435/325, 530/350, 536/23.1, 536/24.1

ABSTRACT:

Transaldolase is an enzyme which acts as an autoantigen in immune-related neurodegenerative diseases, particularly multiple sclerosis. Human transaldolase, the DNA coding therefore, peptides derived therefrom, and DNA control elements associated therewith and anti-transaldolase antibodies are disclosed. These compositions are useful in methods such as immunoassays for detecting subjects making anti-transaldolase antibodies and diagnosing the neurodegenerative disease.

14 Claims, 29 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 60. Document ID: US 5780036 A

L15: Entry 60 of 70

File: USPT

Jul 14, 1998

US-PAT-NO: 5780036

DOCUMENT-IDENTIFIER: US 5780036 A

TITLE: Peptides for inducing cytotoxic T lymphocyte responses to hepatitis B virus

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		

US-CL-CURRENT: 424/189.1; 424/184.1, 424/185.1, 424/186.1, 424/193.1, 424/196.11, 424/204.1, 424/227.1, 514/15, 514/2, 530/300, 530/327, 530/328, 530/403

ABSTRACT:

Peptides are used to define epitopes that stimulate HLA-restricted cytotoxic T lymphocyte activity against hepatitis B virus antigens. The peptides are derived from regions of HBV polymerase, and are particularly useful in treating or preventing HBV infection, including methods for stimulating the immune response of chronically infected individuals to respond to HBV antigens.

7 Claims, 18 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 18

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Des.
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☐ 61. Document ID: US 5709995 A

L15: Entry 61 of 70

File: USPT

Jan 20, 1998

US-PAT-NO: 5709995



**\*\* See image for Certificate of Correction \*\***

TITLE: Hepatitis C virus-derived peptides capable of inducing cytotoxic T lymphocyte responses

DATE-ISSUED: January 20, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chisari; Francis V.	Del Mar	CA		
Cerny; Andreas	La Jolla	CA		

US-CL-CURRENT: 435/5; 424/189.1, 424/228.1, 530/328

## ABSTRACT:

The hepatitis C virus (HCV) is the major cause of non-A, non-B viral hepatitis. The most striking feature of HCV induced liver disease is its tendency toward chronicity and slowly progressive liver cell injury. HLA Class I-restricted cytotoxic T lymphocyte (CTL) responses are considered to be a sine qua non for the effective clearance of viral infections. However, the characteristics of HCV-specific cytotoxic effector cells and identification of their cognate target antigens remains to be elucidated. This invention discloses novel HCV-derived peptides that are recognized by patient CTL. Peripheral blood mononuclear cells (PBMC) were obtained from HLA-A2 positive patients with chronic HCV infection and stimulated with HCV-derived peptides. Effector cells were tested for their ability to lyse HLA-A2-matched target cells sensitized either with a peptide or a vaccinia virus construct containing HCV sequences. Immunogenic HCV CTL peptides were identified in the putative core protein and nonstructural proteins (e.g., NS3-5). These peptides have the following amino acid sequences: ADLMGYIPLV (Core.sub.131-140), LLALLSCLTV (Core.sub.178-187), QLRRHIDLLV (E1.sub.257-266), LLCPAGHAV (NS3.sub.1169-1177), KLVALGINAV (NS3.sub.1406-1415), SLMAFTAAV (NS4.sub.1789-1797), LLFNILGGWV (NS4.sub.1807-1816), ILDSFDPLV (NS5.sub.2252-2260), and DMLGYIPLV (Core.sub.132-140). These peptides facilitate the stimulation and identification of HCV-specific CTL and should provide useful diagnostic reagents for the detection of HCV infection.

33 Claims, 4 Drawing figures

Exemplary Claim Number: 23

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	Publ	Draw	Desc
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☐ 62. Document ID: US 5679352 A

L15: Entry 62 of 70

File: USPT

Oct 21, 1997

US-PAT-NO: 5679352

DOCUMENT-IDENTIFIER: US 5679352 A

TITLE: Synthetic Haemophilus influenzae conjugate vaccine

DATE-ISSUED: October 21, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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Chong; Pele	Richmond Hill	CA
Kandil; Ali	Willowdale	CA
Sia; Charles	Thornhill	CA
Klein; Michel	Willowdale	CA

US-CL-CURRENT: 424/256.1; 424/185.1, 424/190.1, 424/196.11, 435/34, 435/851, 530/324, 530/325, 530/326, 530/387.1

ABSTRACT:

Synthetic peptides have an amino acid sequence corresponding to at least one antigenic determinant of at least one protein, usually a structural protein, particularly the P1, P2 and P6 protein, of Haemophilus influenzae (Hi), particularly type b, and are used as is, in chimeric T-B form, in lipidated form, linked to a carrier molecule, particularly a synthetic PRP molecule and/or polymerized to form molecular aggregates, in vaccines against Hi.

11 Claims, 28 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	MMMC	Draw Des
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☐ 63. Document ID: US 5464630 A

L15: Entry 63 of 70

File: USPT

Nov 7, 1995

US-PAT-NO: 5464630

DOCUMENT-IDENTIFIER: US 5464630 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Liposomes that provide thymic dependent help to weak vaccine antigens

DATE-ISSUED: November 7, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Six; Howard R.	East Stroudsburg	PA		
Garcon; Nathalie B.	Rixensart			BE

US-CL-CURRENT: 424/450; 436/829

ABSTRACT:

The antibody response to a target antigen may be enhanced by incorporating the antigen into a liposome along with an additional constituent which contains at least one T-helper lymphocyte recognition site. The liposomes can include a wide variety of lipid materials. Both the antigen and the T-helper lymphocyte recognition site containing constituent may be associated with the liposome by using hydrophobic interactions or by covalent attachment to a lipid.

12 Claims, 0 Drawing figures  
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 64. Document ID: JP 03173830 A

L15: Entry 64 of 70

File: JPAB

Jul 29, 1991

PUB-NO: JP403173830A

DOCUMENT-IDENTIFIER: JP 03173830 A

TITLE: VACCINE COMPOSITION

PUBN-DATE: July 29, 1991

INVENTOR-INFORMATION:

NAME

COUNTRY

ETLINGER, HOWARD

INT-CL (IPC): A61K 39/05; A61K 39/002; A61K 39/015; A61K 39/02; A61K 39/12; C07K 7/08; C07K 7/10; C07K 13/00; C12P 21/02

ABSTRACT:

PURPOSE: To obtain a vaccine composition containing a T-helper cell epitope-exhibiting compound which is an antigen or its sub-part from a pathogen, and causing a strong defensive immunity response against the pathogen in a host.

CONSTITUTION: This vaccine composition contains a B-cell epitope-exhibiting compound which is an antigen or its antigenic sub-part from a pathogen, such as the sub-part of an antigen from malaria parasite or the sub-part of plasmodium falciparum circumporozoite protein, and a T-helper cell epitope-exhibiting compound which is the sub-part of an antigen from a pathogen, contains an information related to a carrier function and does not contain an information related to an epitope-inhibiting function, such as the sub-part of tetanus toxin or deiphtheria toxin, a polypeptide having an amino acid sequence of formula I or II or its equivalent substance.

COPYRIGHT: (C)1991,JPO

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw Des
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☐ 65. Document ID: WO 9706263 A1

L15: Entry 65 of 70

File: EPAB

Feb 20, 1997

PUB-NO: WO009706263A1

DOCUMENT-IDENTIFIER: WO 9706263 A1

TITLE: HYBRID PROTEIN COMPRISING T-HELPER CELL STIMULATING EPITOPES AND B-CELL EPITOPES FROM THE MAJOR OUTER MEMBRANE PROTEIN OF CHLAMYDIA TRACHOMATIS AND ITS USE AS A VACCINE

PUBN-DATE: February 20, 1997

INVENTOR-INFORMATION:

NAME

COUNTRY

VILLENEUVE, ANNE

CA

INT-CL (IPC): C12 N 15/62; C07 K 19/00; C07 K 14/295; A61 K 39/118; C12 P 21/02; G01

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

## ABSTRACT:

CHG DATE=19990617 STATUS=O>A recombinant hybrid protein is disclosed which expresses at least one chlamydial B-cell neutralizing antibody stimulating epitope and one chlamydial T-helper cell epitope, and is capable of inducing antibodies immunoreactive with Chlamydia trachomatis in vertebrate. Also disclosed is a nucleic acid molecule comprising at least a portion encoding the recombinant hybrid protein and an antibody immunoreactive with C. trachomatis producible by immunizing a host with an immunogenic component comprising the recombinant hybrid protein or the nucleic acid molecule and a carrier. The present invention relates to recombinant hybrid proteins, containing both B and T-helper cell epitopes which can be used in vaccines to provide a protective response to C. trachomatis serovars.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Draws Des.
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☐ 66. Document ID: AU 2003250586 A1, WO 2004014956 A1

L15: Entry 66 of 70

File: DWPI

Feb 25, 2004

DERWENT-ACC-NO: 2004-238735

DERWENT-WEEK: 200456

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TITLE: Novel lipopeptide comprising polypeptide having amino acid sequence of T helper cell epitope and B cell epitope, conjugated to lipid moieties, useful for eliciting immune response against group A Streptococcus antigen

INVENTOR: JACKSON, D; ZENG, W

PRIORITY-DATA: 2002US-402838P (August 12, 2002)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 2003250586 A1	February 25, 2004		000	C07K019/00
WO 2004014956 A1	February 19, 2004	E	194	C07K019/00

INT-CL (IPC): A61 K 39/00; A61 K 39/09; A61 P 1/04; A61 P 15/18; C07 K 19/00

ABSTRACTED-PUB-NO: WO2004014956A

## BASIC-ABSTRACT:

NOVELTY - A lipopeptide comprising polypeptide conjugated to lipid moieties, where polypeptide contains amino acid sequence of T helper cell epitope and B cell epitope, where amino acid sequences are different, and internal lysine residues or internal lysine analog residues for covalent attachment of each of lipid moieties through epsilon amino group or terminal side chain group of lysine or lysine analog, is new.

DETAILED DESCRIPTION - A lipopeptide (I) comprising a polypeptide conjugated to one or more lipid moieties, where a polypeptide comprises amino acid sequence of T helper cell (Th) epitope and the amino acid sequence of a B cell epitope, where the amino acid sequences are different, and one or more internal lysine residues or internal lysine analog residues for covalent attachment of each of the lipid moieties through the epsilon amino group or terminal side chain group of the lysine or lysine analog, each of the one or more lipid moieties is covalently attached to an epsilon amino

group of one or more internal lysine residues or to a terminal side chain group of one or more internal lysine analog residues.

INDEPENDENT CLAIMS are also included for the following:

- (1) a composition (II) comprising (I) and a excipient or diluent;
- (2) producing (I);
- (3) a contraceptive agent (III) comprising (I), where the B cell epitope is from a reproductive hormone or hormone receptor; and
- (4) a vaccine comprising (I), where the B cell epitope is from the M protein of group A Streptococcus or from a gastrin polypeptide.

ACTIVITY - Antibacterial; Antiulcer; Antiinfertility.

MECHANISM OF ACTION - Vaccine.

Lipopeptides comprising a peptide moiety that comprises the CDV-F P25 T-helper epitope and a group A Streptococcus B cell epitope J14 (the peptide moiety had the amino acid sequence of Lys-Leu-Ile-Pro-Asp-Ala-Ser- -Leu-Ile-Glu-Asp-Cys-Thr-Lys-Ala-Glu-Leu-Lys-Gln-Ala-Glu-Asp-Lys-Val-Lys-A- la-Ser-Arg-Glu-Ala-Lys-Lys-Gln-Val-Glu-Lys-Ala-Leu-Glu-Gln-Leu-Glu-Asp-Lys- -Val-Lys) and one or two lipid moieties. The lipoamino acid moiety Pam2Cys-Ser-Ser was added to an internal lysine positioned between the T-helper epitope and the B-cell epitope and, in one construct, an additional lipoamino acid moiety Pam2Cys-Ser-Ser was also added to an N-terminal lysine in the T-helper epitope was prepared. Female outbred Quackenbush mice 4-6 weeks old (15/group) were inoculated intranasally with 60 micro g of prepared peptide-based vaccine in a total volume of 30 micro l phosphate buffered saline (PBS). Mice received three doses of vaccine at 21-day intervals. Fecal IgA was determined 6 days following the last dose of antigen. Seven days following the final dose mice were bled from the tail vein and J14-specific serum IgG was determined. Indirect bactericidal assays were also performed to determined the ability of sera from immunized mice to opsonise or kill the M1 GAS strain in vitro. Eight days following the final dose saliva was collected from individual mice and the average J14-specific salivary IgA antibody titers were determined by standard enzyme linked immunosorbent assay (ELISA). Two weeks after the last dose of antigen, mice were challenged intranasally with M1 GAS strain and survival was determined at various time point afterwards. On analysis, serum IgG titers were elicited using the prepared lipopeptide indicating that the lipopeptide acted as a efficient vaccine.

USE - (I) or (II) is useful in eliciting the production of antibody against an antigenic B cell epitope in a subject, which involves administering (I) or (II) to the subject for a time and under conditions sufficient to elicit the production of antibodies against the antigenic B cell epitope. The lipopeptide is administered intranasally or by injection. (I) or (II) further involves in eliciting the production of high titer antibodies, preferably production of monoclonal antibody against the antigenic B cell epitope. Antibody comprises an immunoglobulin chosen from IgM, IgA, and IgG, where IgA is chosen from IgG1, IgG2a, IgG2b and IgG3. The antigenic B cell epitope is from a pathogen and where the method comprises generating neutralizing antibodies against the pathogen. (I) or (II) is useful in inducing infertility in a subject, which involves administering (I) or (II) to a subject for a time and under conditions sufficient to elicit a humoral immune response against the antigenic B cell epitope. The secondary immune response is generated against the B cell epitope sufficient to prevent oogenesis, spermatogenesis, fertilization, implantation, or embryo development in the subject. The antibody levels are sustained for at least a single reproductive cycle of an immunized female subject. The method further involves producing the lipopeptide, determining the antibody level in a sample taken previously from the subject, determining the fecundity of the subject. (I) is useful for preparing a contraceptive reagent (II) for reducing fertility in an animal subject. (I) or (II) is useful for inducing an immune response against of Group A Streptococcus antigen or against a gastrin peptide in a subject, which

involves administering to the subject (I) or (II). A secondary immune response is generated against the B cell epitope sufficient to prevent the spread of infection by a Group A Streptococcus and/or reduce morbidity or mortality in a subject following a subsequent challenge with a Group A Streptococcus or against the B cell epitope sufficient to prevent or block secretion of gastric acid in an animal in their need. The B cell epitope is derived from the amino acid sequence of the M protein of Group A Streptococcus or from the amino acid sequence of pentagastrin. The animal suffers from a condition chosen from hypergastrinemia, Zollinger-Ellison syndrome, gastric ulceration, duodenal ulceration and gastrinoma where the IgG is chosen from IgG1, IgG2a, IgG2b, and IgG3. (All claimed.) (I) is useful for antibody production, synthetic vaccine production, diagnostic method employing antibodies and antibody ligands and immunotherapy for veterinary and human medicine.

ADVANTAGE - (I) or (II) is efficiently elicits the production of antibody against antigenic B cell epitope.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw Des
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☐ 67. Document ID: US 20040191264 A1, WO 200266056 A2, US 20020119162 A1, US 20020187157 A1, EP 1363664 A2, AU 2002233166 A1, JP 2004529881 W

L15: Entry 67 of 70

File: DWPI

Sep 30, 2004

DERWENT-ACC-NO: 2002-706932

DERWENT-WEEK: 200465

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TITLE: Novel immunogen useful for immunizing an animal, has an activated polyhydroxypolymer backbone to which is attached an antigenic determinant including a B cell epitope and another determinant including a T-helper epitope

INVENTOR: KOEFOED, P; NIELSEN, K G ; JENSEN, M R ; RASMUSSEN, P B

PRIORITY-DATA: 2001US-337543P (October 22, 2001), 2001WO-DK00113 (February 19, 2001), 2001US-0785215 (February 20, 2001), 2001DK-0001231 (August 20, 2001), 2000DK-0000265 (February 21, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 20040191264 A1</u>	September 30, 2004		000	A61K039/00
<u>WO 200266056 A2</u>	August 29, 2002	E	052	A61K039/385
<u>US 20020119162 A1</u>	August 29, 2002		000	A61K039/00
<u>US 20020187157 A1</u>	December 12, 2002		000	A61K039/00
<u>EP 1363664 A2</u>	November 26, 2003	E	000	A61K039/385
<u>AU 2002233166 A1</u>	September 4, 2002		000	A61K039/385
<u>JP 2004529881 W</u>	September 30, 2004		083	A61K039/385

INT-CL (IPC): A61 K 38/19; A61 K 38/20; A61 K 39/00; A61 K 39/38; A61 K 39/385; A61 K 47/48; A61 P 37/04; A61 P 43/00

ABSTRACTED-PUB-NO: WO 200266056A

BASIC-ABSTRACT:

NOVELTY - An immunogen (I) comprising at least one first antigenic determinant that includes at least one B-cell epitope and/or at least one cytotoxic T lymphocyte (CTL) epitope, and at least one second antigenic determinant that includes a T helper cell epitope (TH epitope), where each of the first and second antigenic determinants are

coupled to an activated polyhydroxypolymer carrier, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an immunogenic composition (II) for raising an immune response against an antigen in a mammal, including a human, comprising (I), and optionally an adjuvant.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.

Test details are described, but no results are given.

USE - (I) or (II) contained in a virtual lymph node (VLN) device is useful for immunizing an animal, including a human, against an antigen of choice, where the antigen shares the at least one first antigenic determinant with the immuogen (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	MMIC	Draw Des
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☐ 68. Document ID: ZA 200302628 A, WO 200220038 A2, AU 200185721 A, US 20020172673 A1, EP 1330263 A2, JP 2004508028 W, US 20040156838 A1

L15: Entry 68 of 70

File: DWPI

Sep 29, 2004

DERWENT-ACC-NO: 2002-383033

DERWENT-WEEK: 200468

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TITLE: Inducing immune response against autologous immunoglobulin E in an animal, by effecting simultaneous presentation of cytotoxic T lymphocyte epitope an/or B-cell epitope derived from the immunoglobulin

INVENTOR: GAUTAM, A; KLYSNER, S ; VOLDBORG, B R ; VON HOEGEN, P ; VOLDBORG, B

PRIORITY-DATA: 2000US-232831P (September 15, 2000), 2000DK-0001326 (September 6, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>ZA 200302628 A</u>	September 29, 2004		193	A61K000/00
<u>WO 200220038 A2</u>	March 14, 2002	E	151	A61K039/00
<u>AU 200185721 A</u>	March 22, 2002		000	A61K039/00
<u>US 20020172673 A1</u>	November 21, 2002		000	A61K039/395
<u>EP 1330263 A2</u>	July 30, 2003	E	000	A61K039/00
<u>JP 2004508028 W</u>	March 18, 2004		204	C12N015/09
<u>US 20040156838 A1</u>	August 12, 2004		000	A61K048/00

INT-CL (IPC): A61 K 0/00; A61 K 39/00; A61 K 39/395; A61 K 48/00; A61 P 29/00; A61 P 37/00; A61 P 37/08; C07 K 16/00; C07 K 19/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 5/10; C12 N 15/09; C12 P 21/02

ABSTRACTED-PUB-NO: WO 200220038A

BASIC-ABSTRACT:

NOVELTY - Inducing (M1) an immune response against autologous immunoglobulin E (IgE) in an animal, comprising effecting simultaneous presentation of cytotoxic T lymphocyte (CTL) epitope and/or B-cell epitope derived from IgE, and T helper cell

epitope (TH epitope) which is a foreign to the animal, by antigen presenting cells (APCs) of the animal's immune system, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) down-regulating (M2) (I) in an animal, including a human being by inducing a specific cytotoxic T-lymphocyte (CTL) response against cells producing autologous IgE, by effecting in an animal, simultaneous presentation by a suitable antigen presenting cell (APC) of CTP epitope derived from IgE of the animal, and first T-helper lymphocyte (TH) epitope which is foreign to the animal;
- (2) selection (M2) of an immunogenic analog of an autologous IgE of an animal, the immunogenic analog is capable of inducing a CTL response in the animal against cells displaying a major histocompatibility complex (MHC) class I molecule bound to an epitope derived from the autologous IgE, comprising:
  - (a) identifying at least one subsequence of the amino acid sequence of the autologous IgE which does not contain known or predicted CTL epitopes;
  - (b) preparing at least one putatively immunogenic analog of the autologous IgE by introducing, in the amino acid sequence of the autologous IgE, at least one TH epitope foreign to the animal in a position within at least one subsequence identified in (a); and
  - (c) selecting the/those analogs prepared which are verifiably capable of inducing a CTL response in the animal;
- (3) preparation (M3) of cell producing an analog of a autologous IgE, comprising introducing, into a vector, a nucleic acid sequence encoding an analog and transforming a suitable host cell with the vector;
- (4) an analog (I) of human IgE which is capable of inducing an immune response against autologous IgE in a human subject, comprises at least one CTL or B-cell epitope of the constant IgE heavy or light chain and at least one foreign TH cell epitope;
- (5) a nucleic acid fragment (II) which encodes (I);
- (6) a vector (III) carrying (II);
- (7) a transformed cell (IV) carrying (III);
- (8) a composition (C1) for inducing production of antibodies against IgE, comprises (II), (III) and a pharmaceutically and immunologically acceptable diluent and/or vehicle and/or adjuvant;
- (9) stable cell line (IV) which carries (III), and which expresses (II) and which optionally secretes or carries (I) on its surface; and
- (10) preparation (M4) of (IV) involves transforming a host cell with (II) or with (III).

ACTIVITY - Antiallergic; Immunosuppressive; Antianaphylactic; Antiasthmatic; Dermatological; Antiinflammatory.

MECHANISM OF ACTION - Vaccine.

No biological data is given.

USE - M1 is useful for inducing an immune response against autologous IgE in an animal, which is useful for downregulating autologous IgE in the animal including a human being (claimed), where anaphylaxis, allergic rhinitis, asthma and atopic dermatitis.



□ 69. Document ID: CA 2129101 C, WO 9315205 A2, AU 9334469 A, NO 9402867 A, EP 625203 A1, FI 9403591 A, WO 9315205 A3, JP 07505522 W, AU 669354 B, US 5679352 A, US 5972349 A, JP 11269188 A, US 6018019 A, RU 2141527 C1, JP 2001064201 A, KR 233805 B1, KR 246122 B1, JP 3421337 B2

L15: Entry 69 of 70

File: DWPI

Aug 10, 2004

DERWENT-ACC-NO: 1993-258681

DERWENT-WEEK: 200454

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TITLE: Synthetic Haemophilus influenzae conjugate vaccine - comprising T-helper cell determinants and B-cell epitope(s) linked to synthetic oligo:saccharide(s)

INVENTOR: CHONG, P; KANDIL, A ; KLEIN, M H ; SIA, C ; KLEIN, M ; SIA, C D Y

PRIORITY-DATA: 1992GB-0002219 (February 3, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CA 2129101 C	August 10, 2004	E	000	C07K014/285
WO 9315205 A2	August 5, 1993	E	099	C12N015/31
AU 9334469 A	September 1, 1993		000	C12N015/31
NO 9402867 A	October 3, 1994		000	A61K000/00
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WO 9315205 A3	March 3, 1994		000	C12N015/31
JP 07505522 W	June 22, 1995		033	C12N015/09
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RU 2141527 C1	November 20, 1999		000	C12N015/31
JP 2001064201 A	March 13, 2001		040	A61K039/00
KR 233805 B1	March 15, 2000		000	C12N015/31
KR 246122 B1	March 15, 2000		000	C12N015/31
JP 3421337 B2	June 30, 2003		054	C12N015/09

KR 246122 B1 INT-CL (IPC): A61 K 0/00; A61 K 31/00; A61 K 38/12; A61 K 39/00; A61 K 39/102; A61 K 39/21; A61 K 39/385; A61 K 39/39; A61 K 39/395; A61 K 39/40; A61 K 47/48; A61 P 31/04; A61 P 37/04; C07 H 7/00; C07 H 15/04; C07 H 15/08; C07 H 15/18; C07 H 15/203; C07 K 4/04; C07 K 7/08; C07 K 7/10; C07 K 13/00; C07 K 14/11; C07 K 14/16; C07 K 14/195; C07 K 14/285; C07 K 15/00; C07 K 15/04; C07 K 16/12; C07 K 17/10; C12 N 15/09; C12 N 15/31; C12 N 15/63; C12 Q 1/04; G01 N 33/53; G01 N 33/569

ABSTRACTED-PUB-NO: US 5679352A

BASIC-ABSTRACT:

Synthetic peptide has a sequence corresp. to at least 1 antigenic determinant of at least 1 Haemophilus influenzae protein. Also claimed are: (1) an immunogenic

conjugate comprising a synthetic carbohydrate antigen linked to at least 1 synthetic T cell epitope; (3) a vaccine against a disease caused by a pathogen, comprising the above synthetic peptide and/or at least 1 conjugate as in (1), and a carrier; (4) a diagnostic reagent for detecting H. influenzae infection comprising the components of (3); (5) an antibody raised against the synthetic peptide or the conjugate as in (1); (6) a live vector for antigen delivery contg. a gene encoding the synthetic peptide; (7) prodn. of an oligomer by coupling a cpd. of formula (I) R1, R2 = first and second protecting gps. etc.; and (8) the solid PEG-bound protected polysaccharide prod..

USE/ADVANTAGE - The peptides contain sequences of the outer membrane proteins (P1, P2 and P6) of H. influenza. Antibodies to these proteins can be used in test kits to detect H. influenzae in samples. Peptides contg. a sequence of an immunodominant linear B cell epitope P6 can be used as target antigens in diagnostic kits to detect anti-H. influenzae antibodies. The method allows the highly efficient chemical synthesis of polyriboseribitol phosphite oligomers which is fast, cost-effective and simple to scale up for commercial applications. This is better than soln.-phase synthesis, which is laborious, expensive and time consuming. The conjugate of (1) comprises a carbohydrate antigen with its immunogenicity enhanced using a multiple antigen peptide system using T helper cell epitopes as carriers to increase carbohydrate density. The vaccine is used to protect against H. influenzae infection.

ABSTRACTED-PUB-NO:

US 5972349A EQUIVALENT-ABSTRACTS:

A new immunogenic conjugate, comprises a synthetic peptide having an amino acid sequence which includes at least one immunodominant T-cell epitope of at least one other membrane protein (OMP) of Haemophilus influenzae linked to at least one synthetic B-cell epitope.

Synthetic peptide has a sequence corresp. to at least 1 antigenic determinant of at least 1 Haemophilus influenzae protein. Also claimed are: (1) an immunogenic conjugate comprising a synthetic carbohydrate antigen linked to at least 1 synthetic T cell epitope; (3) a vaccine against a disease caused by a pathogen, comprising the above synthetic peptide and/or at least 1 conjugate as in (1), and a carrier; (4) a diagnostic reagent for detecting H. influenzae infection comprising the components of (3); (5) an antibody raised against the synthetic peptide or the conjugate as in (1); (6) a live vector for antigen delivery contg. a gene encoding the synthetic peptide; (7) prodn. of an oligomer by coupling a cpd. of formula (I) R1, R2 = first and second protecting gps. etc.; and (8) the solid PEG-bound protected polysaccharide prod..

USE/ADVANTAGE - The peptides contain sequences of the outer membrane proteins (P1, P2 and P6) of H. influenza. Antibodies to these proteins can be used in test kits to detect H. influenzae in samples. Peptides contg. a sequence of an immunodominant linear B cell epitope P6 can be used as target antigens in diagnostic kits to detect anti-H. influenzae antibodies. The method allows the highly efficient chemical synthesis of polyriboseribitol phosphite oligomers which is fast, cost-effective and simple to scale up for commercial applications. This is better than soln.-phase synthesis, which is laborious, expensive and time consuming. The conjugate of (1) comprises a carbohydrate antigen with its immunogenicity enhanced using a multiple antigen peptide system using T helper cell epitopes as carriers to increase carbohydrate density. The vaccine is used to protect against H. influenzae infection.

US 6018019A

Synthetic peptide has a sequence corresp. to at least 1 antigenic determinant of at least 1 Haemophilus influenzae protein. Also claimed are: (1) an immunogenic conjugate comprising a synthetic carbohydrate antigen linked to at least 1 synthetic T cell epitope; (3) a vaccine against a disease caused by a pathogen, comprising the above synthetic peptide and/or at least 1 conjugate as in (1), and a carrier; (4) a diagnostic reagent for detecting H. influenzae infection comprising the components of (3); (5) an antibody raised against the synthetic peptide or the conjugate as in (1);

(6) a live vector for antigen delivery contg. a gene encoding the synthetic peptide;  
(7) prodn. of an oligomer by coupling a cpd. of formula (I) R1, R2 = first and second protecting gps. etc.; and (8) the solid PEG-bound protected polysaccharide prod..

USE/ADVANTAGE - The peptides contain sequences of the outer membrane proteins (P1, P2 and P6) of H. influenza. Antibodies to these proteins can be used in test kits to detect H. influenzae in samples. Peptides contg. a sequence of an immunodominant linear B cell epitope P6 can be used as target antigens in diagnostic kits to detect anti-H. influenzae antibodies. The method allows the highly efficient chemical synthesis of polyriboseribitol phosphite oligomers which is fast, cost-effective and simple to scale up for commercial applications. This is better than soln.-phase synthesis, which is laborious, expensive and time consuming. The conjugate of (1) comprises a carbohydrate antigen with its immunogenicity enhanced using a multiple antigen peptide system using T helper cell epitopes as carriers to increase carbohydrate density. The vaccine is used to protect against H. influenzae infection.

WO 9315205A

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	EMC	Draw Des
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☐ 70. Document ID: WO 8909228 A, US 5864008 A, AU 8934175 A, EP 406316 A, DK 9002300 A, HU 55413 T, JP 03503416 W, EP 406316 B1, DE 68920735 E, EP 406316 A4, HU 210966 B

L15: Entry 70 of 70

File: DWPI

Oct 5, 1989

DERWENT-ACC-NO: 1989-309504

DERWENT-WEEK: 199911

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TITLE: New peptide contg. T-helper cell epitope of foot-and-mouth virus - and opt. B-cell epitope, useful in vaccines and for potentiating hormone activity

INVENTOR: FRANCIS, M J; JAMES, S ; ROWLANDS, D J ; FRANCIS, M

PRIORITY-DATA: 1988GB-0021076 (September 8, 1988), 1988EP-0302656 (March 25, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 8909228 A</u>	October 5, 1989	E	031	
<u>US 5864008 A</u>	January 26, 1999		000	C07K014/09
<u>AU 8934175 A</u>	October 16, 1989		000	
<u>EP 406316 A</u>	January 9, 1991		000	
<u>DK 9002300 A</u>	September 24, 1990		000	
<u>HU 55413 T</u>	May 28, 1991		000	
<u>JP 03503416 W</u>	August 1, 1991		000	
<u>EP 406316 B1</u>	January 18, 1995	E	012	C07K007/00
<u>DE 68920735 E</u>	March 2, 1995		000	C07K007/00
<u>EP 406316 A4</u>	March 20, 1991		000	
<u>HU 210966 B</u>	September 28, 1995		000	C07K007/00

INT-CL (IPC): A61 K 39/00; A61 K 39/135; C07 K 5/00; C07 K 7/00; C07 K 14/09; C12 N 15/00

ABSTRACTED-PUB-NO: EP 406316B

<http://westbrs:9000/bin/gate.exe?f=TOC&state=p2k72l.16&ref=15&dbname=PGPB,USPT,U...> 11/19/04

BASIC-ABSTRACT:

New peptides (I), and their veterinarily acceptable salts have a sequence which is derived from foot-and-mouth disease virus (FMDV); is independent, in the FMDV structure, of a B-cell epitope, and (in an animal susceptible to infection by FMDV) can elicit T-cell help for prodn. of antibody against an antigen. Opt. amino acids in the sequence can be altered if T-cell response is maintained. Also new are similar peptides (Ia) also having aminoacid sequence which causes an antibody response to a foreign antigen in such animals.

USE/ADVANTAGE - (Ia) and (I) (when used together with a second peptide which induces response to antigen) are useful for vaccinating animals susceptible to FMDV infection, or to potentiate hormone activity (e.g., to improve growth rate or milk prodn.). The presence of the Th-epitope results in better antibody response than use of a B-cell epitope alone.

ABSTRACTED-PUB-NO:

US 5864008A EQUIVALENT-ABSTRACTS:

A peptide consisting of a sequence of up to 50 amino acids, said sequence presenting the amino acid sequence GVAE; and veterinarily acceptable salts thereof.

New peptides (I), and their veterinarily acceptable salts have a sequence which is derived from foot-and-mouth disease virus (FMDV); is independent, in the FMDV structure, of a B-cell epitope, and (in an animal susceptible to infection by FMDV) can elicit T-cell help for prodn. of antibody against an antigen. Opt. amino acids in the sequence can be altered if T-cell response is maintained. Also new are similar peptides (Ia) also having aminoacid sequence which causes an antibody response to a foreign antigen in such animals.

USE/ADVANTAGE - (Ia) and (I) (when used together with a second peptide which induces response to antigen) are useful for vaccinating animals susceptible to FMDV infection, or to potentiate hormone activity (e.g., to improve growth rate or milk prodn.). The presence of the Th-epitope results in better antibody response than use of a B-cell epitope alone.

WO 8909228A

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FMMC	Draw. Des.
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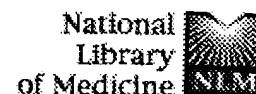
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







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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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A single 10-residue pre-S(1) peptide can prime T cell help for antibody production to multiple epitopes within the pre-S(1), pre-S(2), and S regions of HBsAg.

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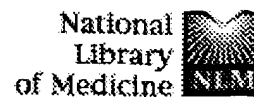
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## A single 10-residue pre-S(1) peptide can prime T cell help for antibody production to multiple epitopes within the pre-S(1), pre-S(2), and S regions of HBsAg.

Milich DR, McLachlan A, Moriarty A, Thornton GB.

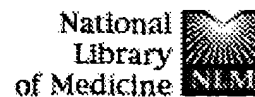
The purpose of this study was to identify and characterize T cell and B cell recognition sites within the pre-S(1) region of HBsAg/p43, and to then analyze functional T cell-B cell interactions at the level of in vivo antibody production. The results indicate: three peptide sequences within the pre-S(1) region of HBsAg were identified which can induce and elicit HBsAg/p43-specific T cell proliferation; a 10-amino acid peptide, p12-21, defines one pre-S(1)-specific T cell recognition site, and residues 18 and 19 are critical to the recognition process; the p12-21 sequence can function as a T cell carrier for a synthetic B cell epitope within the pre-S(2) region; the p94-117 sequence contains at least two T cell recognition sites; five distinct, pre-S(1)-specific antibody binding sites were identified; synthetic pre-S(1) region T cell determinants can prime in vivo antibody production to multiple B cell epitopes within the pre-S(2) and S regions, as well as within the pre-S(1) region; the specificity of the primed T cell population can influence the specificity of the B cell response; and T cell recognition of pre-S(1) region peptides is regulated by H-2-linked genes.

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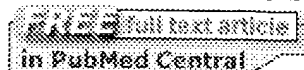
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## Hepatitis B synthetic immunogen comprised of nucleocapsid T-cell sites and an envelope B-cell epitope.

Milich DR, Hughes JL, McLachlan A, Thornton GB, Moriarty A.

Department of Molecular Biology, Research Institute of Scripps Clinic, La Jolla, CA 92037.

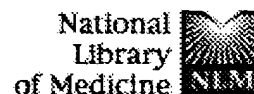
Previous studies located T-cell recognition of the nucleocapsid of the hepatitis B virus (HBcAg) to residues 120-140 in mice bearing the H-2s or H-2b haplotypes. Herein, we demonstrate that B10.S (H-2s) and B10 (H-2b) H-2 congenic strains recognize distinct T-cell sites within the p120-140 (a synthetic peptide corresponding to residues 120-140 of HBcAg) sequence defined by p120-131 and p129-140, respectively. Peptide p120-131 stimulates B10.S HBcAg-primed T cells, and reciprocally p120-131-primed T cells recognize HBcAg. Similarly, the p129-140 sequence is a T-cell recognition site relevant to the native HBcAg in the B10 strain. It is also shown that these 12-residue peptides efficiently prime T-helper cells, which are capable of eliciting antibody production to HBcAg in vivo. These observations prompted us to examine the ability of the HBcAg-specific p120-140 sequence to function as a T-cell carrier moiety as a component of a totally synthetic hepatitis B vaccine. For this purpose a synthetic B-cell epitope from the pre-S (2) region (p133-140) of the viral envelope was chosen because this sequence represents a dominant antibody-binding site of the envelope. Immunization of B10.S and B10 strains with the synthetic composite peptide c120-140-(133-140) elicited anti-peptide antibody production, which was crossreactive with the native viral envelope. Furthermore, c120-140-(133-140) immunization primed p120-131-specific T cells in the B10.S strain and p129-140-specific T cells in the B10 strain, which recognized HBcAg and provided T-helper cell function for anti-envelope antibody production in vivo. These results demonstrate the feasibility of constructing complex synthetic immunogens that represent multiple proteins of a pathogen and are capable of engaging both T and B cells relevant to the native antigens.

PMID: 2449694 [PubMed - indexed for MEDLINE]

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## Mapping an antibody-binding site and a T-cell-stimulating site on the 1A protein of respiratory syncytial virus.

Nicholas JA, Mitchell MA, Levely ME, Rubino KL, Kinner JH, Harn NK, Smith CW.

Department of Cancer and Infectious Diseases Research, Upjohn Company, Kalamazoo, Michigan 49001.

A synthetic peptide modeled on residues 45 to 60 of the 1A protein of respiratory syncytial (RS) virus [1A(45-60)] was constructed and used for immunization of mice and rabbits. The immunoglobulin G fraction of the resulting rabbit antibody, purified on protein A-Sepharose, immunoprecipitated from RS-infected HEp-2 cells a protein with a molecular size of approximately 9.5 kilodaltons, which corresponds to the previously published molecular size of the 1A protein (Y. T. Huang, P. L. Collins, and G. W. Wertz, *Virus Res.* 2:157-173, 1985). To investigate the T-cell-inducing properties of 1A(45-60), six strains of mice were immunized and their popliteal lymph node cells were tested for proliferation upon restimulation with peptide in vitro. The lymph node cells of all six strains of mice were responsive to restimulation with 1A(45-60) and showed high- and low-responder strain variation. These peptide-primed lymph node cells also proliferated upon in vitro restimulation with RS virus-infected cells. Correlation of proliferation with interleukin 2 production suggested that the responding lymphocytes were T-helper cells. The antibody-binding and T-cell-stimulating sites of 1A were mapped by constructing a series of overlapping synthetic peptides and testing each for ability to react with antiserum prepared by immunization of BALB/C mice with free peptide 1A (45-60) or for ability to restimulate proliferation in 1A(45-60)-primed lymph node cells of BALB/C mice. Human antibody, obtained during confirmed RS virus infection, was similarly tested with the truncated peptides. Antibody-binding activity was reduced after truncation from the carboxy terminus, and a binding site was mapped to residues 51 through 60, the smallest peptide tested. T-cell-stimulating activity in mice was relatively resistant to truncation from the carboxy terminus and sensitive to truncation from the amino terminus. The smallest region which retained significant T-cell-stimulating activity mapped to residues 46 through 56. However, addition of the naturally occurring Cys at residue 45 and extension of the C terminus to residue 62 resulted in maximum T-cell-stimulating activity of the peptide. These data define both a T-cell epitope and a B-cell epitope of the 1A protein of RS virus and suggest that the carboxy terminus of 1A contains a B-cell epitope,

involving residues 51 through 60, which is recognized during natural human infection.

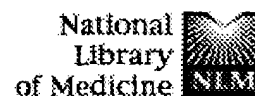
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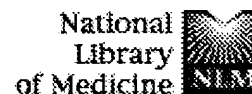
## Multiple T helper cell epitopes of the circumsporozoite protein of *Plasmodium berghei*.

Romero PJ, Tam JP, Schlesinger D, Clavijo P, Gibson H, Barr PJ, Nussenzweig RS, Nussenzweig V, Zavala F.

Department of Medical and Molecular Parasitology, University Medical Center, Rockefeller University, New York.

The present findings establish the lack of genetic restriction of the humoral immune response to sporozoites of *Plasmodium berghei*, corroborating earlier observations that mice of different strains can be protected by immunization with irradiated sporozoites. Most, if not all, anti-sporozoite antibodies are directed against the repetitive B cell epitope of the circumsporozoite (CS) protein. However, neither a peptide containing a dimer of this repeat (17.1), nor a peptide polymer containing multiple repeats induced an antibody response in mice of different H-2 and different genetic backgrounds. A yeast-derived recombinant, containing the repeat domain and part of the surrounding amino and carboxy-terminal regions of the *P. berghei* CS protein, induces very different levels of antibody in mice of diverse H-2 haplotypes. H-2j mice are high responders and the immunized mice are extensively protected against sporozoite challenge. The lymph node cells of the H-2j mice (but not from other strains) proliferated in the presence of peptide N, contained in the amino terminal region of the CS recombinant. Additional H-2-restricted T cell epitopes have been identified in amino and carboxy-terminal regions of the CS protein, and mice of most of the strains recognized multiple T cell epitopes. Two peptides representing T cell epitopes were synthesized in tandem with a peptide representing the B cell epitope, and were assayed for T helper activity in vivo. The antibody response of mice, primed by a single injection of sporozoites, was boosted very effectively by the administration of peptide N + 17.1 or peptide B-4 + 17.1. The B-4 T cell epitope is located in the carboxy-terminal region of the CS protein and is recognized by mice of at least four different H-2 haplotypes. These observations demonstrate that the immune response to the CS protein of *P. berghei* is not genetically restricted and that it contains several T cell epitopes, some of which can function as helper epitopes. In addition, they show that a synthetic sporozoite vaccine can boost the immune response to sporozoites.

PMID: 2464495 [PubMed - indexed for MEDLINE]



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## Immunogenic peptide comprising a mouse hepatitis virus A59 B-cell epitope and an influenza virus T-cell epitope protects against lethal infection.

Koolen MJ, Borst MA, Horzinek MC, Spaan WJ.

Department of Virology, Faculty of Veterinary Medicine, State University of Utrecht, The Netherlands.

The coronavirus spike protein S is responsible for important biological activities including virus neutralization by antibody, cell attachment, and cell fusion. Recently, we have elucidated the amino acid sequence of an S determinant common in murine coronaviruses (W. Luytjes, D. Geerts, W. Posthumus, R. Melen, and W. Spaan, J. Virol. 63:1408-1412, 1989). A monoclonal antibody directed to this determinant (MAb 5B19.2) protected mice against acute fatal infection. In this study, BALB/c mice were immunized with a synthetic peptide of 13 amino acids corresponding to the binding site of MAb 5B19.2, which was either extended with an amino acid sequence of influenza virus hemagglutinin or conjugated to keyhole limpet hemocyanin. Both immunogens induced S-specific antibodies in mice, but only the hemagglutinin-peptide construct protected them against lethal challenge. In contrast to mouse hepatitis virus type 4 (MHV-4), MHV-A59 was not neutralized in vitro by MAb 5B19.2. Neither MHV-A59 nor MHV-4 was neutralized in vitro by antibodies comprising by the synthetic peptides. Our results demonstrated that antibodies elicited with a synthetic peptide comprising a B-cell epitope and a T-helper cell determinant can protect mice against an acute fetal mouse hepatitis virus infection.

PMID: 1700835 [PubMed - indexed for MEDLINE]

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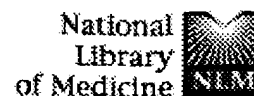
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## The cellular location of a foreign B cell epitope expressed by recombinant bacteria determines its T cell-independent or T cell-dependent characteristics.

Leclerc C, Charbit A, Martineau P, Deriaud E, Hofnung M.

Laboratoire de Biologie des Regulations Immunitaires, Institut Pasteur, Paris, France.

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We have targeted two foreign B cell antigenic determinants to different locations in the Escherichia coli cell to examine what effect this had on antibody responses elicited by the recombinant bacteria. The two epitopes were the 132-145 peptide from the PreS2 region of hepatitis B virus and the C3 neutralization epitope of poliovirus type 1. They were each expressed in two forms either on the surface, as part of the outer-membrane protein LamB, or soluble in the periplasm, as part of the periplasmic protein MalE. When live bacteria expressing the foreign epitope at the cell surface were used for immunization of mice, they induced T cell-independent antibody responses characterized by a rapid induction of IgM and IgG antibodies. In contrast, when the same foreign epitope was inserted into the MalE protein, the antibody response was only detectable after 3 wk, belonged only to the IgG class and was strictly T cell dependent. This study has therefore identified two major pathways by which epitopes expressed by bacterial cells can stimulate specific antibody responses. The first pathway is mediated by direct activation of B cells by bacterial cell-surface Ag and does not require T cell help. The second pathway is T cell dependent and concerns Ag that can be released from the bacteria in a soluble form. We have also studied the effect of the exact position of the B cell antigenic determinant within the LamB protein and with respect to the outer membrane by comparing the immunogenicity of the PreS epitope inserted at three different permissive sites of LamB. The data indicated that to obtain an antibody response with intact bacteria, the epitope must be protruding sufficiently from the outside of the outer membrane. In contrast, when semipurified hybrid proteins were used as immunogen, the exact position of the B cell antigenic determinant within solubilized LamB protein does not influence its immunogenicity.

PMID: 1719080 [PubMed - indexed for MEDLINE]

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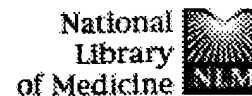
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## A chemically defined synthetic vaccine model for HIV-1.

Nardelli B, Lu YA, Shiu DR, Delpierre-Defoort C, Profy AT, Tam JP.

Rockefeller University, New York, NY 10021.

Multiple Ag peptide (MAP) system without the use of a protein carrier was used as a vaccine model in three species of animals. Synthetic peptides from the V3 region of the gp120 of IIIB, RF and MN HIV-1 isolates were used as the Ag. MAP consisting of various chain lengths, from 11 to 24 residues, were prepared in a monopeptide configuration containing four repeats of each individual peptide. In parallel, they were synthesized in a diepitope configuration adding at the carboxyl-terminus of the V3 peptides a conserved sequence, known to be a Th cell epitope of gp120. The antibody response elicited by the monopeptide constructs was species-dependent. Rabbits produced immunity against all nine peptides, whereas mice were strongly reactive mainly to the longest sequence of the IIIB isolate. The immune response of guinea pigs was intermediate to those of rabbits and mice. Diepitope MAPs were immunogenic in all three species and elicited significantly higher titers than those raised by the immunization with the monopeptide MAPs. The response was type specific; the high-titered antibodies were reactive mostly against the isolate from which the peptides were derived, with a small cross-reactivity in ELISA between IIIB and RF strains. The dominant antigenic site of the B cell epitope, IIIB sequence, was located at the amino and central part of the MAP and a sequence overlapping the putative V3 reverse-turn was particularly reactive with the raised antibodies. Moreover, sera from the immunized animals inhibited virus-dependent cell fusion. These results show that MAP, with a chemically defined structure and without the use of a protein carrier, can be potentially useful for the design of synthetic HIV-1 vaccine candidates.

PMID: 1370524 [PubMed - indexed for MEDLINE]

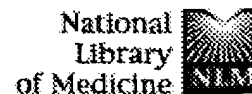
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Rockefeller University, New York, NY 10021.

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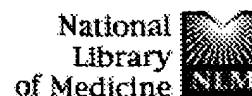
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## Enhancement of the antibody response to flavivirus B-cell epitopes by using homologous or heterologous T-cell epitopes.

Roehrig JT, Johnson AJ, Hunt AR, Beaty BJ, Mathews JH.

Division of Vector-Borne Infectious Diseases, Centers for Disease Control, Fort Collins, Colorado 80522.

We have been investigating the T-helper (Th)-cell response to the flavivirus envelope (E) glycoprotein. In our studies with Murray Valley encephalitis (MVE) virus, we previously identified synthetic peptides capable of priming Th lymphocytes for an in vitro antiviral proliferative response (J. H. Mathews, J. E. Allan, J. T. Roehrig, J. R. Brubaker, and A. R. Hunt, J. Virol. 65:5141-5148, 1991). We have now characterized in vivo Th-cell priming activity of one of these peptides (MVE 17, amino acids 356 to 376) and an analogous peptide derived from the E-glycoprotein sequence of the dengue (DEN) 2, Jamaica strain (DEN 17, amino acids 352 to 368). This DEN peptide also primed the Th-cell compartment in BALB/c mice, as measured by in vitro proliferation and interleukin production. The failure of some MVE and DEN virus synthetic peptides to elicit an antibody response in BALB/c mice could be overcome if a Th-cell epitope-containing peptide was included in the immunization mixture. A more detailed analysis of the structural interactions between Th-cell and B-cell epitope donor peptides revealed that the peptides must be linked to observe the enhanced antibody response. Blockage or deletion of the free cysteine residue on either peptide abrogated the antibody response. The most efficient T-B-cell epitope interaction occurred when the peptides were colinearly synthesized. These Th-cell-stimulating peptides were also functional with the heterologous B-cell epitope-containing peptides. The Th-cell epitope on DEN 17 was more potent than the Th-cell epitope on MVE 17.

PMID: 1374807 [PubMed - indexed for MEDLINE]

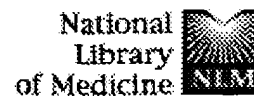
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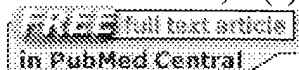
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Roehrig JT, Johnson AJ, Hunt AR, Beaty BJ, Mathews JH.

Division of Vector-Borne Infectious Diseases, Centers for Disease Control, Fort Collins, Colorado 80522.

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PMID: 1374807 [PubMed - indexed for MEDLINE]

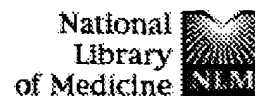
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## Immunogenicity and vaccine efficacy of synthetic peptides containing Semliki Forest virus B and T cell epitopes.

Snijders A, Benaissa-Trouw BJ, Snippe H, Kraaijeveld CA.

Eijkman-Winkler Laboratory of Medical Microbiology, Academic Hospital Utrecht, The Netherlands.

A synthetic peptide that contains a Semliki Forest virus (SFV) B cell epitope, located at amino acid positions 240 to 255 of the E2 protein, and an SFV T helper (Th) cell epitope, located at positions 137 to 151 of the E2 protein, evoked high titres of SFV-reactive antibodies in H-2d mice. Although the peptide-induced antibodies did not neutralize SFV in vitro, 70 to 100% of the peptide-immunized mice were protected against SFV, even when viral challenge was presented 4 months after immunization. The protection could be transferred by anti-peptide serum, indicating that antibodies were responsible for the protection. When the Th cell epitope of this protective peptide was replaced by an influenza virus Th cell epitope or by another SFV Th cell epitope, the resulting peptides induced lower non-neutralizing SFV-reactive antibody titres and protected a correspondingly lower percentage of mice (50% and 30%, respectively). A peptide with the same Th cell epitope as the best protective peptide but with a less effective SFV B cell epitope protected only 33% of the mice. These results indicate that protection against SFV by a synthetic peptide is primarily dependent on its ability to induce adequate amounts of antibodies with relevant specificity and sufficient affinity; the ability to induce a relevant (SFV-specific) T memory response played only a minor role in protection.

PMID: 1383405 [PubMed - indexed for MEDLINE]

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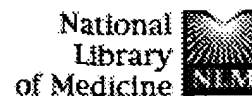
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## Antibody responses to non-immunogenic synthetic peptides induced by co-immunization with immunogenic peptides.

Partidos CD, Obeid OE, Steward MW.

Department of Clinical Sciences, London School of Hygiene and Tropical Medicine, U.K.

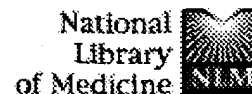
Chimeric peptides comprising B- and T-helper cell epitopes from the proteins of infectious agents represent immunogens with potential for use as new vaccines. However, it has become clear that the orientation of the epitopes, the presence of spacer residues and the number of copies of the epitopes influence the specificity, levels and affinity of the antibody produced following immunization with such constructs. Furthermore, the response to peptides is under genetic control leading to major histocompatibility complex (MHC)-linked non-responsiveness. In this study, we have investigated the potential of co-immunization of immunogenic peptides (to provide T-cell help) with non-immunogenic peptides (representing B-cell epitopes) to overcome the non-response to the latter. For this purpose, we have employed peptides representing T- and B-cell epitopes derived from the sequences of the fusion and haemagglutinin glycoproteins of measles virus. The results obtained show that simple co-immunization of a B-cell epitope with a T-cell epitope results in the production of antibody to the B-cell epitope without the requirement for covalent linkage of the two peptides. This approach could thus be used to overcome the problem of poor immunogenicity of peptides and will be of potential value in the design of immunization strategies using synthetic immunogens.

PMID: 1385315 [PubMed - indexed for MEDLINE]

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## A T-helper cell epitope overlaps a major B-cell epitope in human papillomavirus type 18 E2 protein.

**Lehtinen M, Stellato G, Hyoty H, Nieminen P, Vesterinen E, Paavonen J.**

Institute of Biomedical Sciences, University of Tampere, Finland.

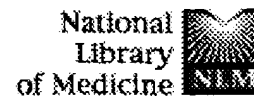
Cultivated CD4+ T-helper cells from two patients with cervical adenocarcinoma showed responses to a peptide EKTGILTVTYHSETQRTK derived from an E2 protein of human papillomavirus type 18 (HPV 18), but not to a corresponding HPV 16 peptide (HKSAIVTLTYDSEWQRDQ). Serum antibodies in the HPV 18 peptide were also demonstrated in these patients. The GILT motif resembles a common pattern present in many T-cell epitopes, and is located at the beginning of an 11-amino acid-long A-helix structure close to the carboxyterminal end of HPV 18 E2. We conclude that two epitopes (a T-helper cell epitope and a B-cell epitope) overlap in the HPV 18 E2.

PMID: 1282020 [PubMed - indexed for MEDLINE]

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## Immunogenicity of multiple antigen peptides containing B and non-repeat T cell epitopes of the circumsporozoite protein of *Plasmodium falciparum*.

Calvo-Calle JM, de Oliveira GA, Clavijo P, Maracic M, Tam JP, Lu YA, Nardin EH, Nussenzweig RS, Cochrane AH.

Department of Medical and Molecular Parasitology, New York University School of Medicine, NY 10010.

We have characterized the immune response of mice to multiple Ag peptide systems (MAP) containing the immunodominant B cell epitope (NANP)3 and one of three distinct Th epitopes, Th2R, Th3R, and CS.T3, of the C terminal region of the circumsporozoite protein of *Plasmodium falciparum*, a human malaria parasite. Mice of three different MHC haplotypes (H-2k, H-2d, and H-2a) were immunized with the various MAP constructs. Mice of all three strains produced antibodies, but their anti-sporozoite titers were considerably lower than their anti-peptide titers as detected by ELISA. These antibodies reacted at high titers not only with the repeat polymer (NANP)50, but also with MAP that contained only the respective Th sequence. The antibody binding site within each of the Th sequences was mapped, using truncated peptides, in an inhibition assay. A primary antibody response, induced by a single i.v. inoculation of sporozoites, was greatly enhanced by the injection of MAP.

PMID: 7679427 [PubMed - indexed for MEDLINE]

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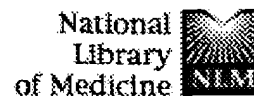
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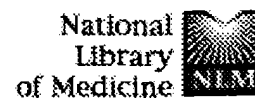
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## Influence of epitope polarity and adjuvants on the immunogenicity and efficacy of a synthetic peptide vaccine against Semliki Forest virus.

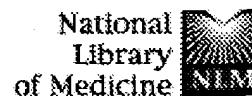
Fernandez IM, Snijders A, Benaissa-Trouw BJ, Harmsen M, Snippe H, Kraaijeveld CA.

Eijkman-Winkler Laboratory of Medical Microbiology, University Hospital Utrecht, The Netherlands.

The antibody response to a previously defined B-cell epitope of Semliki Forest virus (SFV) was investigated in male BALB/c (H-2d) mice. The B-cell epitope, located at amino acid positions 240 to 255 of the E2 protein, was linked to an H-2d-restricted T-helper cell epitope of SFV located at positions 137 to 151 of the E2 protein. Colinearly synthesized peptides, of either T-B or B-T polarity, mixed with different adjuvants (the nonionic block copolymer L 180.5, a water-oil-water [W/O/W] emulsion of L 180.5, Montanide, and Q VAC) were used for immunization. Generally, after one booster immunization, high serum antibody titers were measured against either peptide. With Q VAC and W/O/W L 180.5 as adjuvants, the titers of SFV-reactive (nonneutralizing) antibodies were consistently much higher after immunization with the T-B peptide than with the B-T peptide, which was reflected in a higher vaccine efficacy. With these two adjuvants, the survival ratio in T-B peptide-immunized mice was 82%, compared with 8% in B-T peptide-immunized mice. Intermediate results were obtained with the adjuvant Montanide. L 180.5 alone was ineffective in this study. All immunoglobulin G (IgG) isotypes were induced with either adjuvant, but Q VAC was clearly the most effective in inducing IgG2a and IgG2b isotypes with the T-B peptide as the antigen. Subsequently, monoclonal antibodies (MAbs) of IgM, IgG1, IgG2a, IgG2b, and IgG3 subclasses were prepared against the B-cell epitope. These nonneutralizing but SFV-reactive MAbs protected 40 to 80% of mice against a lethal challenge with SFV. Control mice all died. The availability of those antipeptide MAbs allowed competition binding assays with a previously characterized panel of E2-specific MAbs. Binding of enzyme-labeled antipeptide MAbs was very effectively inhibited by two strongly SFV-neutralizing mutually competitive MAbs, suggesting that the linear B-cell epitope (amino acids 240 to 255) is associated with a major neutralization site of SFV.

PMID: 7690411 [PubMed - indexed for MEDLINE]





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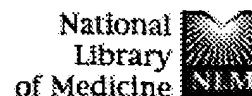
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Eijkman-Winkler Laboratory of Medical Microbiology, University Hospital Utrecht, The Netherlands.

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PMID: 7690411 [PubMed - indexed for MEDLINE]



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## Immunogenicity evaluation of a lipidic amino acid-based synthetic peptide vaccine for *Chlamydia trachomatis*.

Zhong G, Toth I, Reid R, Brunham RC.

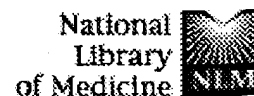
Department of Medical Microbiology, University of Manitoba, Winnipeg, Canada.

Lipidic amino acid-based synthetic peptides derived from the variable domains (VD) of *Chlamydia trachomatis* outer membrane protein 1 were evaluated as potential candidate sequences in a vaccine. A peptide sequence designated P2 from the VD IV of serovar B contained a B cell epitope capable of eliciting antibodies binding to serovar B elementary bodies (EB) and a T helper site capable of presentation by multiple H-2 alleles. Polymerization of the P2 into polylysine to form lipid core peptides (LCP) significantly enhanced immunogenicity compared with P2 monomer alone. The LCP system incorporates lipidic amino acids into the polylysine system and enhances lipophobicity and membrane binding effects of the peptide. A second peptide sequence derived from the VD I of serovar C was cosynthesized with P2 into lipidic polylysine LCP and was designated LCP-H1. Antibodies to this construct reacted at high titer with EB of the three major trachoma causing *C. trachomatis* serovars A, B, and C. LCP-H1 was immunogenic among four of five murine H-2 alleles. Pepscan analysis showed that the fine specificity of antibodies generated to LCP-H1 were directed to the predetermined neutralizing epitope sequences. An in vitro HAK cell neutralization assay showed that LCP-H1 elicited neutralizing antibodies to serovars A, B, and C, but these were of low titer. Because LCP-H1 antibodies bound to the peptide sequence with 10-100-fold higher titer than to EB, the low neutralization titers most likely result from conformational differences between the synthetic peptide and antigenic sites on the native organism. Modification of LCP-H1 to incorporate a predefined conformation may result in improved antigenic properties.

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Zhong G, Toth I, Reid R, Brunham RC.

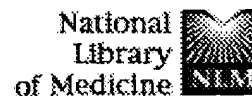
Department of Medical Microbiology, University of Manitoba, Winnipeg, Canada.

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## Co-dominant and reciprocal T-helper cell activity of epitopic sequences and formation of junctional B-cell determinants in synthetic T:B chimeric immunogens.

Sharma P, Kumar A, Batni S, Chauhan VS.

International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi, India.

The identification of defined T-helper (Th) cell determinants, particularly those recognized in the context of several MHC or HLA haplotypes, and their use to provide effective carrier help to short synthetic constructs representing a B-cell epitope have made it feasible to synthesize putatively potent immunogens. However, a number of crucial questions regarding immunogenicity of epitopic sequences need to be addressed before an optimally effective synthetic vaccine can be designed. The present study deals with the hybrid constructs incorporating a known B-cell epitope from the merozoite surface protein-1 (MSP-1) of a human malarial parasite, *Plasmodium falciparum*, and the promiscuous Th-cell epitope from tetanus toxin or from the circumsporozoite protein of *P. falciparum*. Here, we provide data which suggest that B- and T-cell determinants present in a hybrid construct could, in fact, provide reciprocal helper activity for antibody production; that antibodies to a Th-cell epitope may not necessarily block its helper function; and that junctional B-cell epitopes may be formed. All this may influence, in an unpredictable manner, the quality of protective immune response sought to be generated using the chimeric immunogens, with important implications for vaccine design.

PMID: 8296485 [PubMed - indexed for MEDLINE]

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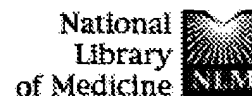
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## Fusion proteins with heterologous T helper epitopes. Recombinant E. coli heat-stable enterotoxin proteins.

Lowenadler B, Lycke N.

Kabi Pharmacia BioScience Center, Stockholm, Sweden.

Fusion proteins containing specific B cell and T cell epitopes were used to examine how the intramolecular arrangement of T and B cell epitopes within a chimeric protein influences antigen-specific B cell antibody responses as well as specific T cell activation. Chimeric proteins, containing single or multiple copies of the Th epitope ovalbumin 323-339 (ova) linked at different positions to STa, the heat-stable enterotoxin of E. coli, were compared with respect to their ability to induce STa-specific antibody production and to induce ova-specific T cell activation. Chimeric proteins induced ova-dependent antibody production against STa at the amino terminal end, irrespective of the positioning of ova. Multiple tandem copies of ova in any position led to increased levels of antibody production against this epitope. In contrast, T cell help for antibody production against a second B cell epitope at the carboxy terminus of the fusion proteins was more effective after insertion of multiple copies of ova in a distal than in an adjacent position. A fusion protein, containing four copies of ova effectively elicited T cell help for antibody production against both examined B cell determinants, showing that activated Th cells recognizing a single epitope could simultaneously provide help for distinct sets of B cells specific for widely separated epitopes within a protein. T cell recognition of ova in all chimeric peptides, independently of its position, following the same pattern of genetic restriction (i.e. immunodominant in H-2d and nonimmunogenic in H-2k) as in the native ovalbumin molecule.(ABSTRACT TRUNCATED AT 250 WORDS)

Publication Types:

- Review
- Review, Tutorial

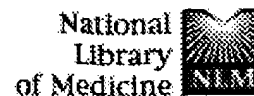
PMID: 7519227 [PubMed - indexed for MEDLINE]

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## A shared idiotope among antibodies against Semliki Forest virus.

**Fernandez IM, Ovaa W, Harmsen M, Benaissa-Trouw BJ, Bos NA, Kraaijeveld CA, Snippe H.**

Eijkman-Winkler Institute of Medical and Clinical Microbiology, University Hospital Utrecht, The Netherlands.

In the present study a shared idiotope was found among antibodies against a previously defined linear B-cell epitope of Semliki Forest virus (SFV). The synthetic B-cell epitope, located at amino acid positions 240 to 255 of the E2 membrane protein, was linked to an H-2d-restricted T-helper cell epitope of either SFV or influenza virus. Colinearly synthesized peptides of T-B polarity mixed with adjuvant were used to immunize BALB/c (H-2d) mice. After one booster immunization with either chimaeric peptide high serum antibody titers were measured against both synthetic peptide (240-255) and glutaraldehyde-fixed SFV-infected L cells. Against the synthetic peptide (240-255) a variety of monoclonal antibodies (MAbs) were produced that differed in reactivity with SFV, varied in heavy chain family, isotype, isoelectric point, and idiotype. Against one of the anti-peptide MAbs (I02), that strongly reacted with SFV-infected L cells, an anti-idiotypic MAb (ab2MAb), designated I02A3, was produced that could be inhibited in its binding to MAb I02 by the synthetic B-cell epitope. Therefore it was concluded that ab2 MAb I02A3 recognizes an idiotope closely associated with the antigen combining site of anti-peptide MAb I02. This idiotope was definitively shared by two out of 15 anti-peptide MAbs and by SFV-reactive antibodies present in both anti-peptide sera and SFV-immune sera.

PMID: 7531444 [PubMed - indexed for MEDLINE]

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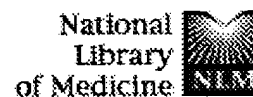
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## Virus or a hapten-carrier complex can activate autoreactive B cells by providing linked T help.

Steinhoff U, Burkhardt C, Arnheiter H, Hengartner H, Zinkernagel R.

Department of Pathology, Institute for Experimental Immunology, Zurich, Switzerland.

We investigated the mechanism leading to an IgG autoantibody response in two transgenic mouse lines expressing the glycoprotein of vesicular stomatitis virus (VSV-G). Previous experiments have shown that these animals do not mount a transgene-specific IgG response upon stimulation with purified VSV-G or infection with recombinant vaccinia virus expressing VSV-G. However, infection of VSV-G transgenic animals with wild-type vesicular stomatitis virus, serotype Indiana, readily induced VSV-G-specific, neutralizing IgG autoantibodies. We have tested whether this labile state of tolerance reflected differential availability of VSV-G-specific T help. For this, we immunized transgenic mice with the self-antigen VSV-G covalently coupled to sperm-whale myoglobin (VSV-G-SWM), to provide new T helper epitopes that are linked to the B cell epitope; co-injected uncoupled VSV-G and SWM served as control. High titers of VSV-G specific IgG autoantibodies were detected in serum of mice immunized with VSV-G-SWM but not after co-injection of uncoupled VSV-G and SWM. Transgenic animals depleted of CD4+ T cells prior to injection of VSV-G-SWM failed to mount an IgG response. Priming of transgenic mice with the foreign carrier did not accelerate the IgG autoantibody response to VSV-G-SWM, suggesting that B cells were limiting the rate of the response. Thus, self-reactive B cells could be triggered to produce IgG, if they received linked T help specific for a foreign carrier determinant provided either by a classical carrier determinant or a virus.

PMID: 7907298 [PubMed - indexed for MEDLINE]

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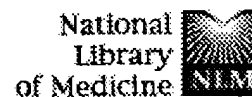
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## Induction of neutralizing antibodies against human immunodeficiency virus type 1 using synthetic peptide constructs containing an immunodominant T-helper cell determinant from vpr.

Sarobe P, Lasarte JJ, Golvano JJ, Prieto I, Gullon A, Soto MJ, Labarga P, Prieto J, Borrás-Cuesta F.

Departamento de Medicina Interna, Universidad de Navarra, Pamplona, Spain.

Identification of immunodominant T-helper-cell determinants after natural infection is an important step in the design of immunogens for potential use in vaccination. Using cells from human immunodeficiency virus type 1 (HIV-1)-infected individuals and a panel of peptides encompassing the sequence of the regulatory protein vpr from HIV-1, we identified the T-helper determinant QLLFIHFRIGCRHSR, which is active in 37.5% of these individuals. To gain insight on the efficacy of this peptide in helping induce neutralizing antibodies against a B-cell determinant (BD), we synthesized constructs containing B- and T-cell determinants and tested them in BALB/c mice, the highest responders to the T-cell determinant moiety among several strains tested. These immunogens induced antibodies against two chosen B-cell determinants from HIV-1IIIB gp160 (amino acids 310-322 from the V3 loop of gp120 and 736-751 from gp41) that were able to neutralize HIV-1 infection in vitro. The highest neutralization titer against HIV-1IIIB was obtained by immunization with the homopolymer of the construct containing the T-cell epitope from vpr and the B-cell epitope from the V3 loop. We believe that the immunodominant T-cell determinant from vpr is a promising epitope to consider in the design of future peptide vaccines.

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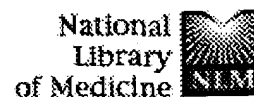
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## Analysis of T helper cell response to glycoprotein H (gpUL75) of human cytomegalovirus: evidence for strain-specific T cell determinants.

Beninga J, Kalbacher H, Mach M.

Institut für Klinische und Molekulare Virologie, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany.

The proliferative response of helper T cells against glycoprotein H (gH; gpUL75) of human cytomegalovirus (HCMV) was determined in T cell lines from 5 healthy HCMV-seropositive donors. A differential response in two lines was noted when gH from strain AD169 or Towne was used as antigen. T cell-reactive domains between aa 15 and 510 were identified using beta-galactosidase fusion proteins containing overlapping fragments of gH, and they were confirmed with synthetic peptides as stimulating antigen. T cell proliferation was observed with antigens containing aa 34-51, 111-142, 284-302, 324-342, and 454-510 of gH. None of the determinants stimulated all donors. The T cell epitope defined by aa 34-51 is located in close proximity to a strain-specific dominant B cell epitope; however, no strain dependence for this T cell determinant was observed. In contrast, the dominant T cell response against aa 284-302, which was observed in three T cell lines, was strain specific.

PMID: 8627054 [PubMed - indexed for MEDLINE]

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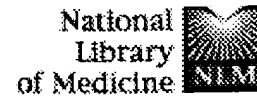
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## Poly (DL-lactide-co-glycolide) microspheres as carriers for peptide vaccines.

Ertl HC, Varga I, Xiang ZQ, Kaiser K, Stephens L, Otvos L Jr.

Wistar Institute, Philadelphia, PA 19104, USA.

Peptides carrying an immunodominant T-helper cell epitope delineated from the rabies virus nucleoprotein either alone or in combination with a linear B-cell epitope from the same protein were incorporated into three different formulations of poly(DL-lactide-co-glycolide) (PLG) which were distinct in their composition, and consequently in their peptide release rates. In vitro peptides incorporated into any of the PLG formulations stimulated a peptide-specific T-cell line. Upon subcutaneous immunization of mice, the PLG formulation that showed the fastest peptide release rate induced the best immune response. This immune response was in magnitude comparable or even superior to that induced by peptide emulsified in complete Freund's adjuvant.

PMID: 8843629 [PubMed - indexed for MEDLINE]

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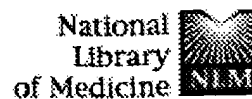
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## Hierarchic T-cell help to non-linked B-cell epitopes.

Brons NH, Blaich A, Wiesmuller KH, Schneider F, Jung G, Muller CP.

Laboratoire National de Sante, Luxembourg, Germany.

The induction of antibodies against peptides requires the presence of a T helper cell epitope. In the absence of an added T-cell epitope only 10% of the mice, or less depending on the strain, gave an antibody response to a series of peptides of the measles virus (MV) fusion (F) protein. After coimmunization with a non-covalently coupled T-cell epitope more than 60% of the peptides became immunogenic. Considerable differences became apparent when BALB/c mice were immunized with peptides in the presence of different T-cell epitopes. An immunodominant T-cell epitope of the MV-F protein was more efficient than a subdominant or a cryptic T-cell epitope in providing help to a non-linked B-cell epitope. There is both a ranking order of the amount of help which B-cell epitopes require and a ranking order for the help T-cell epitopes are able to provide. The capability of a T-cell epitope to provide help to a B-cell epitope correlated with its own immunogenicity, i.e. the intensity of the antibody response to the peptide representing the T-cell epitope. The data suggest that for each MHC class II allele there is an optimal T-cell epitope which can provide help to a maximal number of B-cell epitopes and that such a peptide can be identified by its ability to induce antibodies against itself. By using this strategy, the authors were able to induce antibodies which cross-reacted with the MV.

PMID: 8947599 [PubMed - indexed for MEDLINE]

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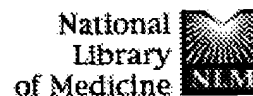
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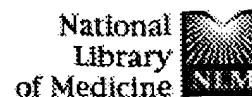
## **A multivalent minigene vaccine, containing B-cell, cytotoxic T-lymphocyte, and Th epitopes from several microbes, induces appropriate responses in vivo and confers protection against more than one pathogen.**

**An LL, Whitton JL.**

Department of Neuropharmacology, CVN-9, The Scripps Research Institute, La Jolla, California 92037, USA.

The development of safe and effective vaccines remains a major goal in the prevention, and perhaps treatment, of infectious diseases. Ideally, a single vaccine would confer protection against several pathogens and would induce both cellular and humoral arms of the immune response. We originally demonstrated that two virus-specific cytotoxic T-lymphocyte (CTL) epitopes, from the same virus but presented by different major histocompatibility complex alleles, when linked in tandem as minigenes in a recombinant vaccinia virus, could confer complete protection against subsequent viral challenge. In the study, we extended this approach, which we termed string of beads, expanding the immunogenic scope in two ways: first, by introduction of T helper (Th) and B-cell (antibody) epitopes alongside CTL epitopes and second, by including immunogenic sequences from a variety of infectious agents, five viruses and one bacterium. The vaccine (VV-sv) comprises CTL epitopes from Sendai virus, respiratory syncytial virus, and lymphocytic choriomeningitis virus (LCMV); Th epitopes from vesicular stomatitis virus and Mycobacterium tuberculosis; and an antibody epitope from mengovirus. The construct contains a single start codon, and the epitopes are linked directly, without intervening spacer amino acids. There was some concern that the combination of several normally immunodominant epitopes might result in a new hierarchy of dominance, in which certain epitopes predominated and others exhibited reduced immunogenicity. However we show that when analyzed in tissue culture and in vivo, all six epitopes are expressed. CTL and Th cells are induced in vivo, along with neutralizing antibody. The induced immunity is biologically relevant: after VV-sv immunization, the antimengovirus antibody confers protection against mengovirus challenge. Similarly, CTL induced by the LCMV epitope protected mice against challenge with this agent. Thus, a polyvalent, minigene-based vaccine can simultaneously induce several classes of immune response and thereby can confer protection against diverse pathogens.

PMID: 9032365 [PubMed - indexed for MEDLINE]



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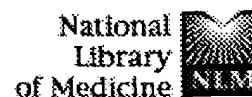
**A multivalent minigene vaccine, containing B-cell, cytotoxic T-lymphocyte, and Th epitopes from several microbes, induces appropriate responses in vivo and confers protection against more than one pathogen.**

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PMID: 9032365 [PubMed - indexed for MEDLINE]



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## Potent immunogenic short linear peptide constructs composed of B cell epitopes and Pan DR T helper epitopes (PADRE) for antibody responses in vivo.

del Guercio MF, Alexander J, Kubo RT, Arrhenius T, Maewal A, Appella E, Hoffman SL, Jones T, Valmori D, Sakaguchi K, Grey HM, Sette A.

Cytel Corporation, San Diego, CA 92121, USA.

Induction of humoral immune responses against protein antigen requires that two independent signals be delivered to B cells. It is currently assumed that simple monovalent synthetic peptides would not be effective immunogens for antibody responses because they would not be anticipated to effectively generate the necessary signals unless conjugated to a complex carrier system. In this study, the immunogenicity of short linear peptide constructs comprising Plasmodium vivax B cell epitopes (PVB) and non-natural Pan-DR T helper cell epitopes (PADRE) was assessed in mice and compared to other types of antigen constructs. The 33-residue PADRE-PVB linear constructs were highly immunogenic and induced responses comparable to those obtained with the multiple antigen peptides (MAP) constructs, both in terms of absolute titers and quality of antibody responses. The anti-PVB antibody responses were of long duration, composed mostly of IgG and reactive with intact sporozoites. The PADRE-PVB constructs were immunogenic when formulated in adjuvants such as Alum and Montanide ISA 51 underlining the relevance of these findings for vaccine development.

PMID: 9141216 [PubMed - indexed for MEDLINE]

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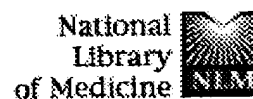
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**FULL-TEXT ARTICLE**

## Generation of antibodies to human IL-12 and amphiregulin by immunization of Balb/c mice with diepitope multiple antigen peptides.

Ahlborg N, Paulie S, Braesch-Andersen S.

Department of Immunology, Stockholm University, Sweden.

Six peptide sequences derived from the human proteins/oligopeptides IL-12, amphiregulin and FALL-39 were synthesized in order to raise specific antibodies in Balb/c mice. Although peptides are valuable tools for generating specific antibodies, they are often poor immunogens due to their small size and lack of relevant T-cell epitopes. To circumvent these limitations, the human peptides were co-synthesized in diepitope multiple antigen peptides (MAP) with a known H-2d-restricted T helper-cell epitope. The importance of including a T-cell epitope in the diepitope MAPs was demonstrated by the fact that only one of the human peptides was immunogenic as a monoepitope MAP, lacking the T-cell epitope. Conversely, all diepitope MAPs generated potent antibody responses to the desired human peptides as well as to the T-cell epitope. A certain degree of variability of the antibody responses to the diepitope MAPs indicated that the alterable component, i.e. the human B-cell epitope, influenced the T-cell help elicited by the T-cell epitope. Still, the relative conformity of the B-cell responses suggests that this strategy is generally applicable for a rational production of specific antibodies. Moreover, antiserum to four diepitope MAPs recognized the corresponding full-length human protein/oligopeptide as did monoclonal antibodies made against IL-12-and amphiregulin-based MAPs.

PMID: 9202706 [PubMed - indexed for MEDLINE]

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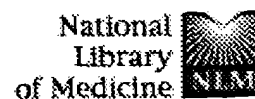
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**FULL-TEXT ARTICLE**

## Generation of antibodies to human IL-12 and amphiregulin by immunization of Balb/c mice with diepitope multiple antigen peptides.

Ahlborg N, Paulie S, Braesch-Andersen S.

Department of Immunology, Stockholm University, Sweden.

Six peptide sequences derived from the human proteins/oligopeptides IL-12, amphiregulin and FALL-39 were synthesized in order to raise specific antibodies in Balb/c mice. Although peptides are valuable tools for generating specific antibodies, they are often poor immunogens due to their small size and lack of relevant T-cell epitopes. To circumvent these limitations, the human peptides were co-synthesized in diepitope multiple antigen peptides (MAP) with a known H-2d-restricted T helper-cell epitope. The importance of including a T-cell epitope in the diepitope MAPs was demonstrated by the fact that only one of the human peptides was immunogenic as a monoepitope MAP, lacking the T-cell epitope. Conversely, all diepitope MAPs generated potent antibody responses to the desired human peptides as well as to the T-cell epitope. A certain degree of variability of the antibody responses to the diepitope MAPs indicated that the alterable component, i.e. the human B-cell epitope, influenced the T-cell help elicited by the T-cell epitope. Still, the relative conformity of the B-cell responses suggests that this strategy is generally applicable for a rational production of specific antibodies. Moreover, antiserum to four diepitope MAPs recognized the corresponding full-length human protein/oligopeptide as did monoclonal antibodies made against IL-12-and amphiregulin-based MAPs.

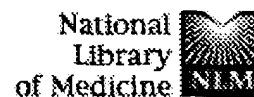
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**FULL-TEXT ARTICLE**

## Induction of HIV-1 IIIb neutralizing antibodies in BALB/c mice by a chimaeric peptide consisting of a T-helper cell epitope of Semliki Forest virus and a B-cell epitope of HIV.

Fernandez IM, Golding H, Benaissa-Trouw BJ, de Vos NM, Harmsen M, Nottet HS, Golding B, Puijk WC, Meloen RH, Snippe H, Kraaijeveld CA.

Eijkman-Winkler Institute for Microbiology, Infectious Diseases and Inflammation, University Hospital, Utrecht, The Netherlands.

A colinearly synthesized peptide consisting of a H-2d restricted T-helper cell epitope of Semliki Forest virus (SFV) and triple repeats of sequence GPGRAF, derived from the V3 domain of HIV-1 strains, was used to immunize BALB/c (H-2d) mice. Pepscan analysis of sera from peptide-immunized mice revealed that the chimaeric peptide GREKFTIRPHYGKEIGPGRAFPGRAFPGRAF contains three distinct antibody-reactive sequences GREKFTIR, PHYGKEI and GPGRAF. The chimaeric peptide evoked HIV-1 IIIb neutralizing antibodies in serum as measured in vitro by reduction of syncytia formation and reduction of p24 production as well. So, the T-helper cell epitope of SFV provided help to a small linear neutralization epitope of HIV-1 strains. Interestingly, the T-helper cell epitope alone might induce antibodies cross-reactive with HIV-1 IIIb specific peptide GPGRAFTIGK which shows some homology (residues underlined) with the antibody-reactive sequence GREKTIR of SFV.

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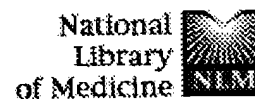
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## Multi epitopic B- and T-cell responses induced in humans by a human immunodeficiency virus type 1 lipopeptide vaccine.

Gahery-Segard H, Pialoux G, Charmeteau B, Sermet S, Poncelet H, Raux M, Tartar A, Levy JP, Gras-Masse H, Guillet JG.

Laboratoire d'Immunologie des Pathologies Infectieuses et Tumorales, INSERM Unit inverted question marke 445, Institut Cochin de G inverted question marken inverted question marketique Mol inverted question markeculaire, Universit inverted question marke Ren inverted question markee Descartes, H inverted question markopital Cochin, 75014 Paris, France. gahery@icgm.cochin.inserm.fr

We have attempted to develop an anti-human immunodeficiency virus (HIV) lipopeptide vaccine with several HIV-specific long peptides modified by C-terminal addition of a single palmitoyl chain. A mixture of six lipopeptides derived from regulatory or structural HIV-1 proteins (Nef, Gag, and Env) was prepared. A phase I study was conducted to evaluate immunogenicity and tolerance in lipopeptide vaccination of HIV-1-seronegative volunteers given three injections of either 100, 250, or 500 microg of each lipopeptide, with or without immunoadjuvant (QS21). This report analyzes in detail B- and T-cell responses induced by vaccination. The lipopeptide vaccine elicited strong and multi epitopic B- and T-cell responses. Vaccinated subjects produced specific immunoglobulin G antibodies that recognized the Nef and Gag proteins. After the third injection, helper CD4(+)-T-cell responses as well as specific cytotoxic CD8(+) T cells were also obtained. These CD8(+) T cells were able to recognize naturally processed viral proteins. Finally, specific gamma interferon-secreting CD8(+) T cells were also detected ex vivo.

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## Peptide vaccines and peptide libraries.

Wiesmuller KH, Fleckenstein B, Jung G.

EMC microcollections GmbH, Tübingen, Germany.

Synthetic immunogens, containing built-in adjuvanticity, B cell, T helper cell and CTL epitopes or mimotopes, are ideal and invaluable tools to study the immune response with respect to antigen processing and presentation. This serves as a basis for the development of complete and minimal vaccines which do not need large carrier proteins, further adjuvants, liposome formulations or other delivery systems. Combinatorial peptide libraries, either completely random or characterized by one or several defined positions, are useful tools for the identification of the critical features of B cell epitopes and of MHC class I and class II binding natural and synthetic epitopes. The complete activity pattern of an O/Xn library with hundreds of peptide collections, each made up from billions of different peptides, represents the ranking of amino acid residues mediating contact to the target proteins of the immune system. Combinatorial libraries support the design of peptides applicable in vaccination against infectious agents as well as therapeutic tumour vaccines. Using the principle of lipopeptide vaccines, strong humoral and cellular immune responses could be elicited. The lipopeptide vaccines are heat-stable, non-toxic, fully biodegradable and can be prepared on the basis of minimized epitopes by modern methods of multiple peptide synthesis. The lipopeptides activate the antigen-presenting macrophages and B cells and have been recently shown to stimulate innate immunity by specific interaction with receptors of the Toll family.

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PMID: 11405221 [PubMed - indexed for MEDLINE]

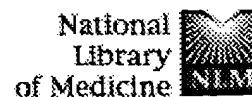
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

















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
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
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
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















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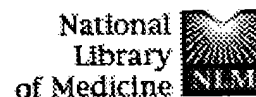
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## **Influence of the T-helper epitope on the titre and affinity of antibodies to B-cell epitopes after co-immunization.**

**Shaw DM, Stanley CM, Partidos CD, Steward MW.**

Department of Clinical Sciences, London School of Hygiene and Tropical Medicine, U.K.

We have assessed the influence of different T-helper cell epitopes on the level and affinity of antibody to B-cell epitopes induced following co-immunization with free peptides mimicking epitopes from measles and respiratory syncytial virus envelope proteins. The responses obtained following co-immunization have been compared to those obtained following immunization with chimeric synthetic peptide immunogens in which the epitopes were covalently coupled. The results show that covalent linkage of the B- and T-cell epitopes is not necessary for the generation of T-cell dependent antibody responses to non-immunogenic B-cell epitopes. In addition the induction of memory B-cells required adjuvant but subsequent stimulation of these memory cells did not. The responses obtained were non-MHC restricted since co-immunization resulted in the production of antibody responses to B-cell epitopes in a panel of five inbred mouse strains but there were differences in the ability of different T-cell epitopes to provide help for antibody production to the same B-cell epitope. The affinity of antibodies to the B-cell epitopes induced following immunization with chimeric T:B peptides was higher than that obtained following co-immunization. These results indicate the value of co-immunization for the induction of antibody responses to B-cell epitopes across MHC differences and suggest that this strategy may be of value in the development of synthetic peptide vaccines. However, modifications of the approach need to be developed to ensure the production of antibody of the highest possible affinity.

PMID: 7688851 [PubMed - indexed for MEDLINE]

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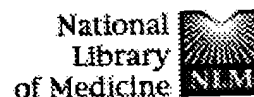
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## Immunization with a multiple antigen peptide containing defined B- and T-cell epitopes: production of bactericidal antibodies against group B *Neisseria meningitidis*.

Christodoulides M, Heckels JE.

University of Southampton, Southampton General Hospital, UK.

Previous analysis of the class 1 outer-membrane (OM) protein of *Neisseria meningitidis* has identified discrete epitopes to be potential targets for immune attack. The conformation of these epitopes is important for inducing antibodies which can react with the native protein and promote complement-mediated lysis of the meningococcus. The multiple antigen peptide (MAP) system, which consists of an oligomeric branching lysine core to which are attached dendritic arms of defined peptide antigens, confers some conformational stability and also allows for the preparation of immunogens containing both B-cell and T helper (Th)-cell epitopes. In this study, MAPs were synthesized to contain (i) the subtype P1.16b meningococcal class 1 protein B-cell epitope (B-MAP), and (ii) the P1.16b epitope in tandem with a defined Th-cell epitope, chosen from tetanus toxin (BT-MAP). The B-MAP was nonimmunogenic in animals. In contrast, incorporation of the Th-cell epitope into BT-MAP induced a strong humoral response towards the class 1 protein B-cell epitope. Antisera from immunized mice and rabbits reacted in ELISA with synthetic peptides containing the B-cell epitope, and also cross-reacted with meningococcal OMs from strains of subtype P1.16b and P1.16a. Murine and rabbit antisera showed similar reactivity and epitope specificity, but did not react with denatured class 1 protein in Western blotting, indicating the predominance of antibodies directed towards conformational epitopes. The antisera from rabbits immunized with BT-MAP promoted complement-mediated bactericidal killing not only of the homologous meningococcal subtype P1.16b strain but also of subtype P1.16a.

PMID: 7529096 [PubMed - indexed for MEDLINE]

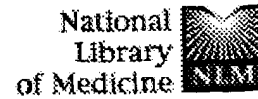
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
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
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
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
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
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
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
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
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
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








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
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
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
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
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
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










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
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
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








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







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
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
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
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
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
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
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